KENTUCKY FORESTS

Western Coalfield Unit

FOREWORD

More than a decade has elapsed since the last comprehensive inventory of Kentucky's woodlands. Timber cutting, tree growth, and shifts in land use since then have led to several important changes in the timber resource. The demand for forest products has also changed. Recent emphasis on rural area development has made the necessity for fresh statistics even more pressing. Local communities and forest-based industries are finding a greater need for up-to-date data as they plan for future economic development. So, there is an urgent need for new information.

To meet these needs, the Division of Forestry of the Kentucky Department of Natural Resources and the U.S. Forest Service planned and conducted a new inventory of Kentucky forests. The field work was completed in 1964.

The McSweeney-McNary Forest Research Act of 1928 authorizes the Forest Service to complete a statewide forest inventory of Kentucky at approximate 10-year intervals. This is part of the nationwide program of maintaining a current account of our timber resources. The State of Kentucky appropriated $120,000 for the current survey. This contribution, supplementing the Federal funds available for a regular survey, made it possible to intensify the inventory. As a result, we can provide the kind of detailed information needed for making long-range plans to meet future demands and in addition help local communities and forest-based industries make more efficient use of the forest resource.

Clarence D. Chase, Leader of the Survey Project at the Lake States Forest Experiment Station, directed the inventory. Field survey units of the Kentucky Division of Forestry and the Lake States Station collected the basic inventory data. The Lake States Station computed and tabulated the final statistics and the Central States Forest Experiment Station analyzed and reported the results.

Other organizations made important contributions to the new inventory. Personnel of the Eastern Region of the U.S. Forest Service inventoried and provided statistics for the Cumberland National Forest. The Northeastern Forest Experiment Station assisted with the computation of National Forest data. The Tennessee Valley Authority provided men and equipment to assist in surveying areas of their interest. The Soil Conservation Service and the Agricultural Stabilization and Conservation Service provided the field crews with office space and up-to-date aerial photographs. The Kentucky Department of Highways took and provided aerial photographs for parts of eastern Kentucky where no recent photographs were available. The University of Kentucky and Kentucky Department of Commerce took an active part in planning and gave valuable assistance with problems that evolved during the course of the inventory. Our thanks go to all these organizations and others who contributed.

For sampling and reporting purposes, the State was divided into seven survey units (frontispiece). This report covers the Western Coalfield Unit. Additional information regarding the survey can be obtained from either the Division of Forestry, Kentucky Department of Natural Resources, or the Central States Forest Experiment Station.

Central States Forest Experiment Station, U.S. Dept. of Agriculture
Forest Service, 111 Old Federal Building, Columbus, Ohio
R. D. Lane, Director

CS-9
Archives

KENTUCKY FORESTS

Western Coalfield Unit

Paul S. DeBald

David A. Gansner

Prepared in cooperation with

Division of Forestry, Kentucky Department of Natural Resources

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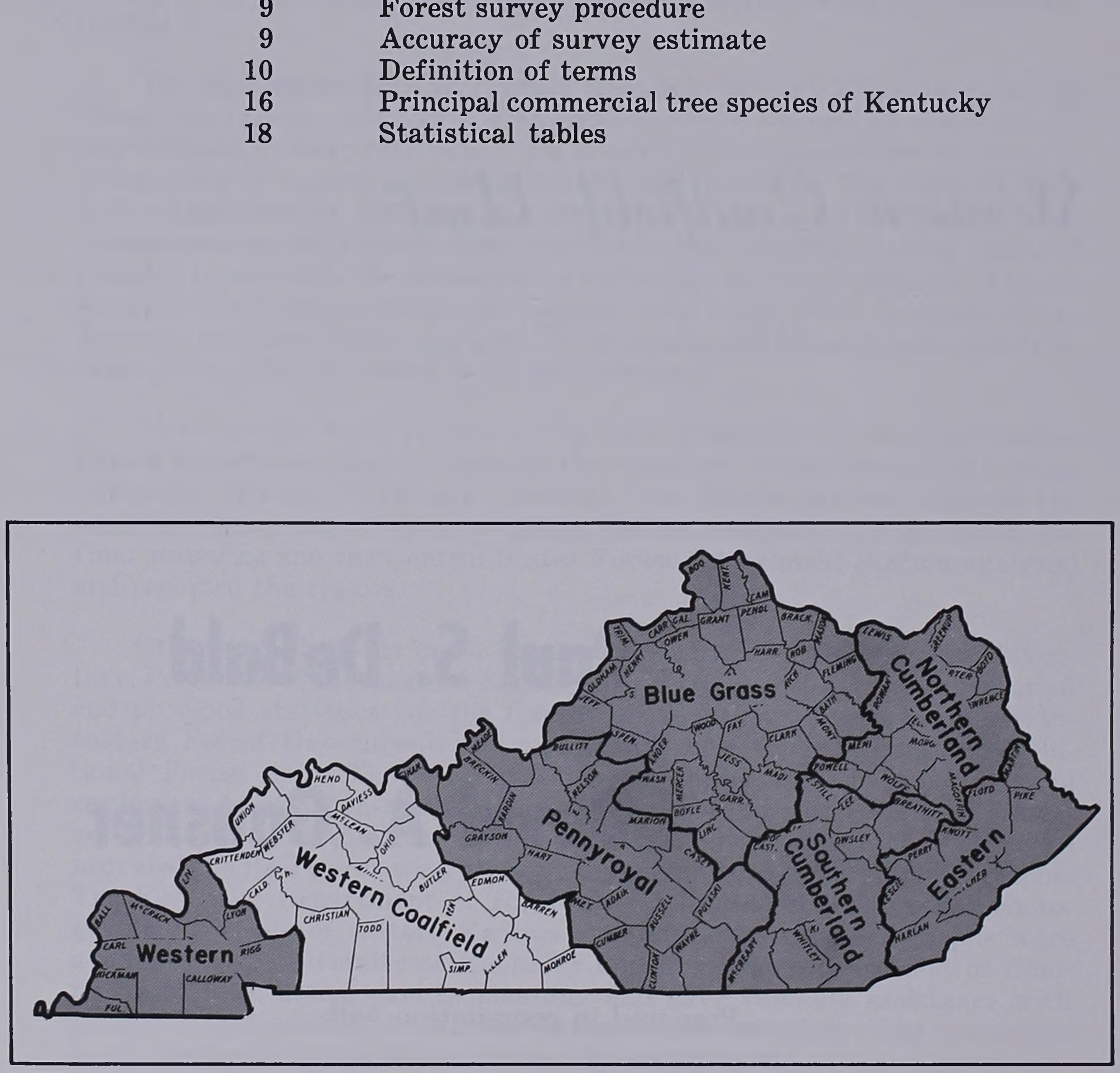

Location of the Western Coalfield Unit in Kentucky.

THE TIMBER RESOURCE HAS CHANGED

The 20-county Western Coalfield Unit is probably best known for its mineral and agricultural production. Each year large amounts of coal, petroleum, and other mineral products are taken from the region. And since the topography here is less rugged than that found further east, most of the land is farmed. However, about 1.9 million acres or one-third of the total land area of the region is forested and this forest contributes its share to State and local economies. The current annual harvest of timber in the Western Coalfield is greater than in any other survey unit of Kentucky.

All but about 56,000 acres or 3 percent of the region's forest is classified commercial. The bulk of the noncommercial forest is found in Mammoth Cave National Park where woodlands are reserved from cutting.

Commercial forest area has increased about 5 percent from 1,750,000 to 1,843,000 acres since 1949, with gains occurring in 13 of the 20 counties (fig. 1). Counties in the central part of the region are more heavily forested than those to the north and south where the land surface is more level and better suited to agriculture. Sixty percent of the land area in Edmonson County is forested, making it the most heavily wooded county in the region. At the other extreme is Simpson County which is only 15 percent forested.

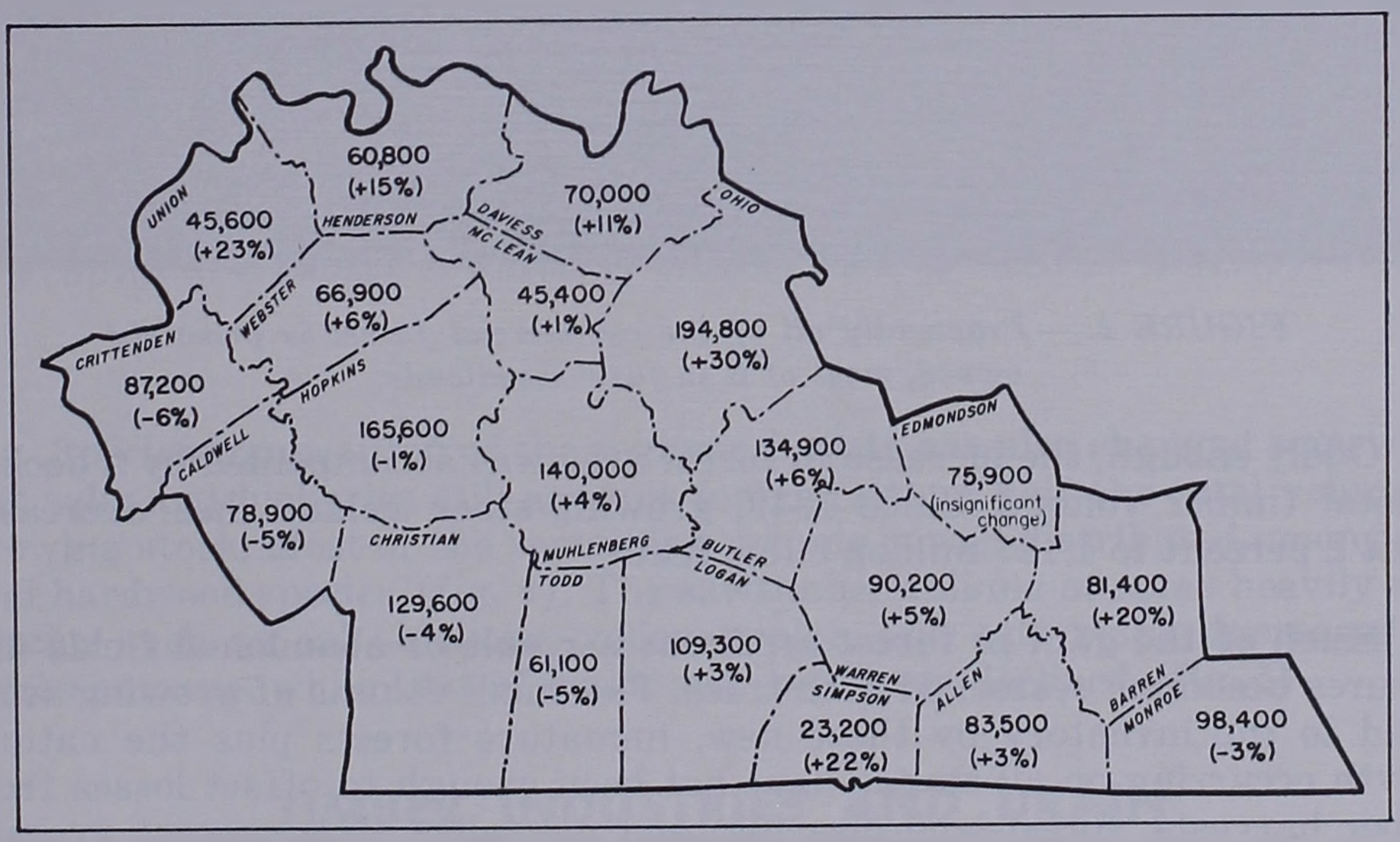

FIGURE 1. — Acreage of commercial forest land by county, 1963, and percentage change since 1949.

The general pattern of woodland ownership has not changed significantly since the last survey. Acreages of commercial forest land in public and private ownerships have both increased but private holdings still account for almost 99 percent of the total (fig. 2).

FIGURE 2. — Practically all of the commercial forest is privately owned, most of it in farm woodlands.

Oddly enough, the increase in forest area was accompanied by a decline in total timber volume. Since 1949, growing-stock volume has decreased about 2 percent to 1,157 million cubic feet.[1]

Much of the gain in forest area was a result of abandoned fields and pastures becoming restocked with trees. The small volume of growing stock added to the inventory by these new, immature forests plus the natural growth occurring on all stands have not been enough to offset losses from timber harvests, forest-land clearing, and mortality. The present average of 628 cubic feet of growing stock per acre is 44 cubic feet less than in 1949.

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[1] The 1949 estimates of growing-stock volume are not directly comparable with those of 1963 because they did not include merchantable material in the upper-stem portion of hardwood sawtimber-size trees. The 1949 data had to be adjusted to permit comparisons.

While the total volume of growing stock declined, significant increases took place in the volume of trees 11 to 19 inches d.b.h. (fig. 3). Most of the cut in the immediate future will come from these trees which are beginning to develop quality growth. The volume of sawtimber increased 476 million board feet or 13 percent between surveys. This amounted to an average annual gain of 11 board feet per acre. Because most of the volume increase occurred on trees 11 to 19 inches in diameter, there has been a shift in the distribution of sawtimber volume by size class. In 1949, two-thirds of the sawtimber volume was in trees less than 19.0 inches d.b.h. and now more than three-fourths of the volume is in these sizes.

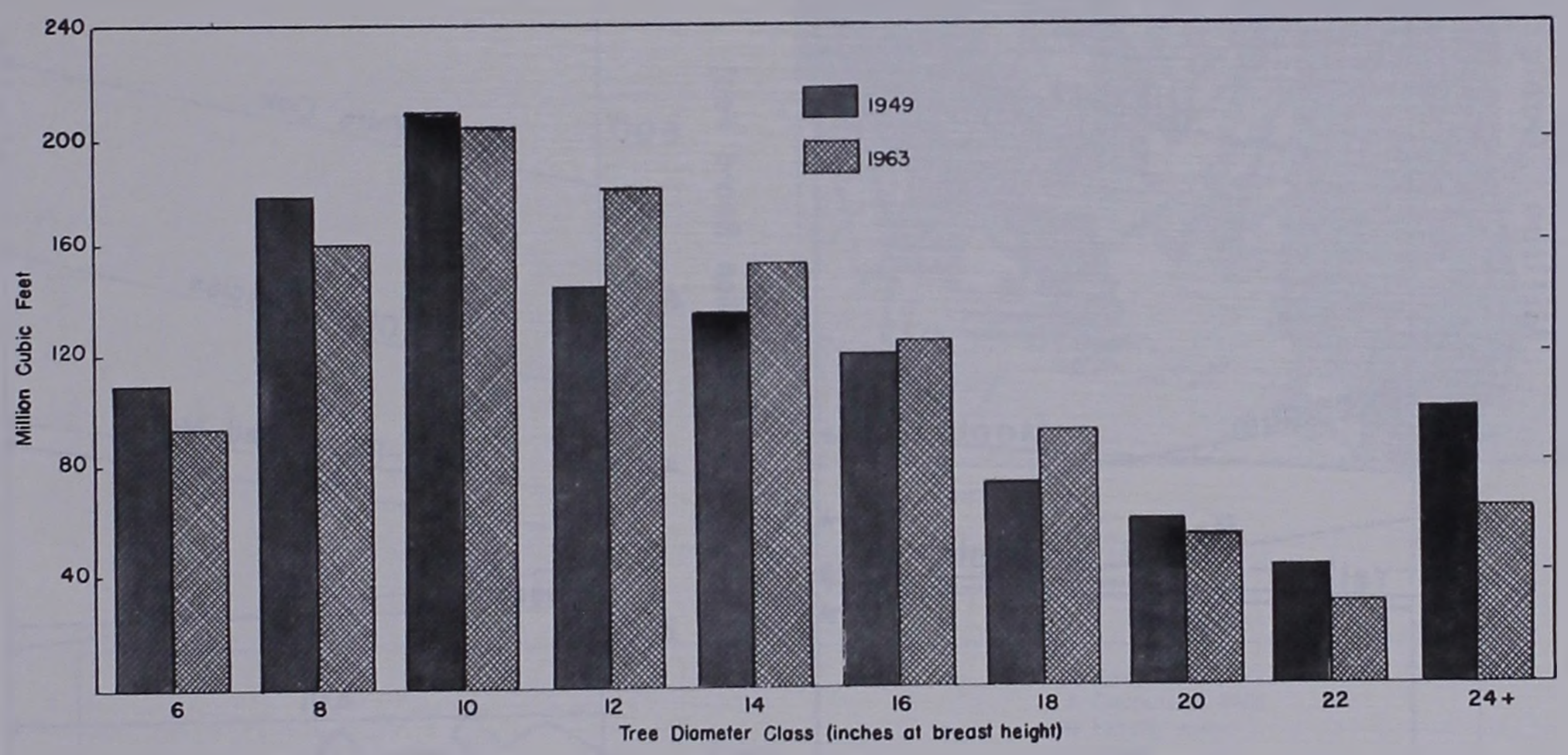

FIGURE 3. — Change in volume of growing stock by diameter class, 1949-1963.

Species composition of the region's forests has also changed somewhat, but oaks and hickories still account for more than half the total volume of growing stock. Most of the remaining volume is well distributed among several hardwood species (fig. 4). The sawtimber volume of some heavily used species such as oak, hickory, yellow-poplar, and soft maple increased between surveys, while that of beech and sweetgum declined (fig. 5).

TIMBER INDUSTRIES AND DRAIN

In 1962, almost 34 million cubic feet of growing stock were cut from the Western Coalfield Unit. This was more than one-fourth of the total cut in Kentucky during that year. The regional harvest, averaging about 18 cubic feet per commercial forest acre, was greater than in any other survey unit of the State (fig. 6).

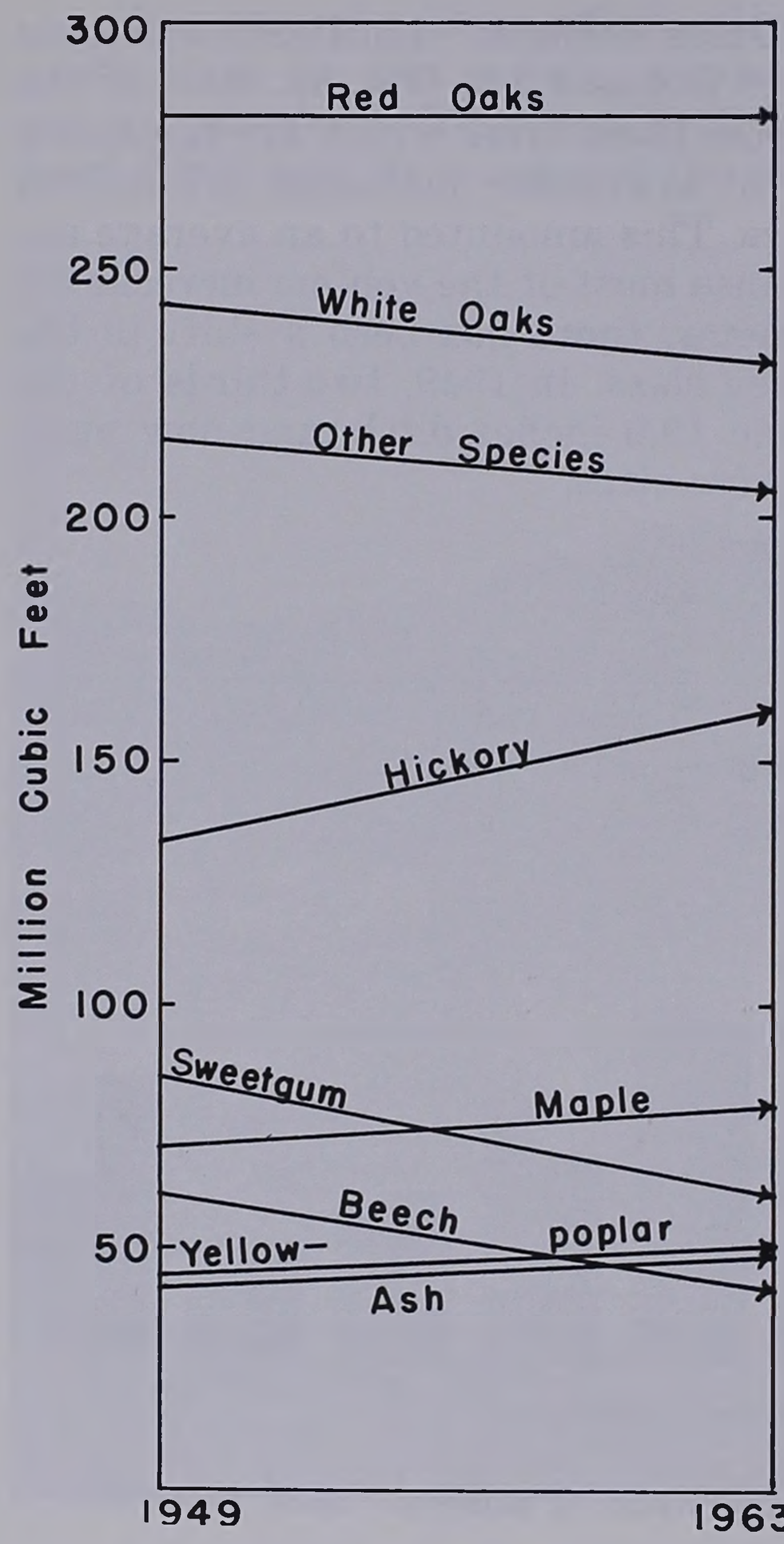

FIGURE 4. — Change in growing-stock volume by species groups, 1949-1963.

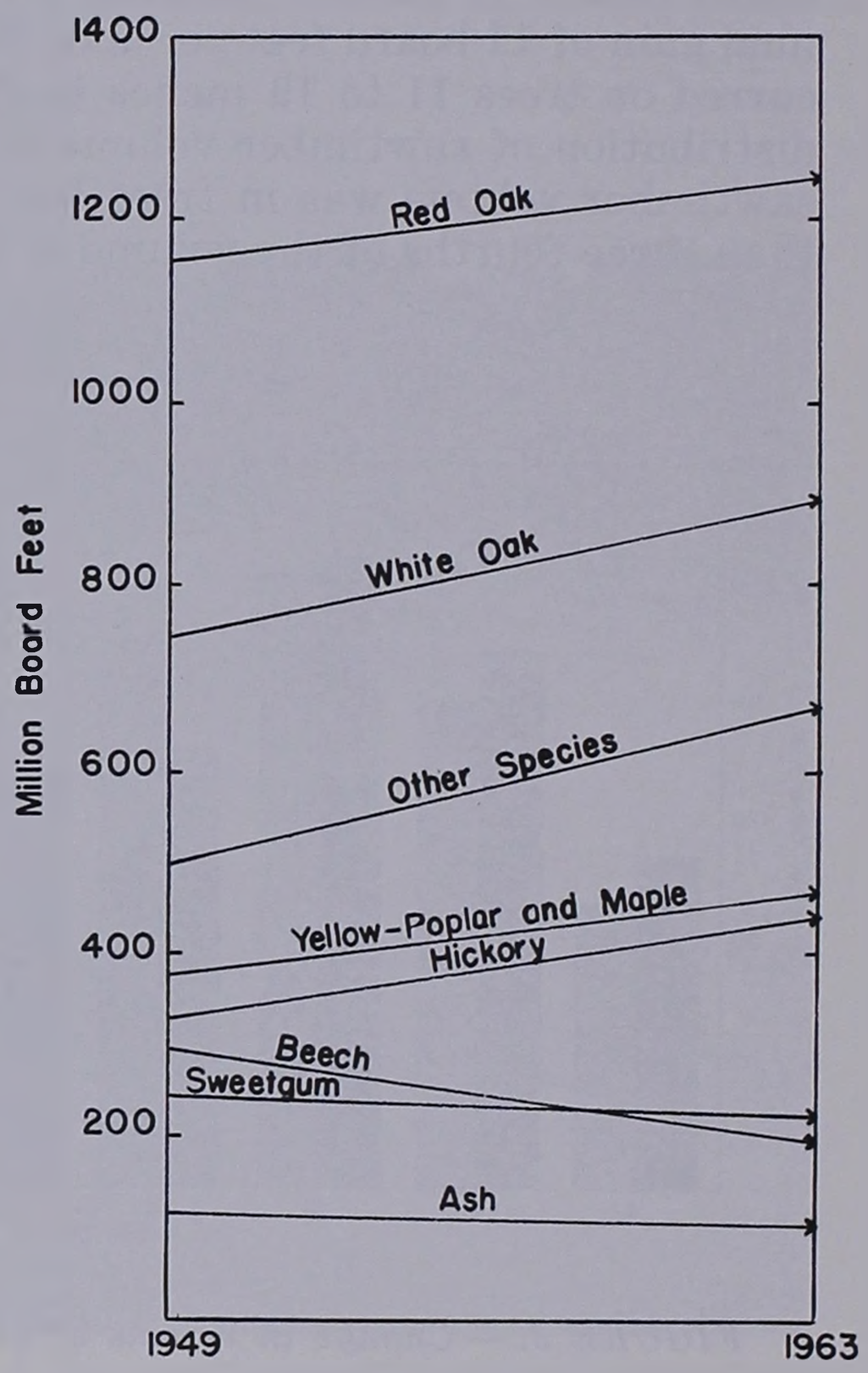

FIGURE 5. — Change in sawtimber volume by species groups, 1949-1963.

Nearly 100 primary wood-using firms are active in the region; most of them are lumber-producing sawmills (fig. 7). Some of Kentucky's largest mills are found here. Lumber production in 1962 totaled 142 million board feet, averaging well over 1 million board feet per mill. Among the region's other primary firms are six cooperage mills and three handle plants. These mills consumed less than 10 million board feet of timber but used high-quality white oak, ash, and hickory logs.

FIGURE 6. — The cut of timber per commercial forest acre averages higher here than in any other region of Kentucky.

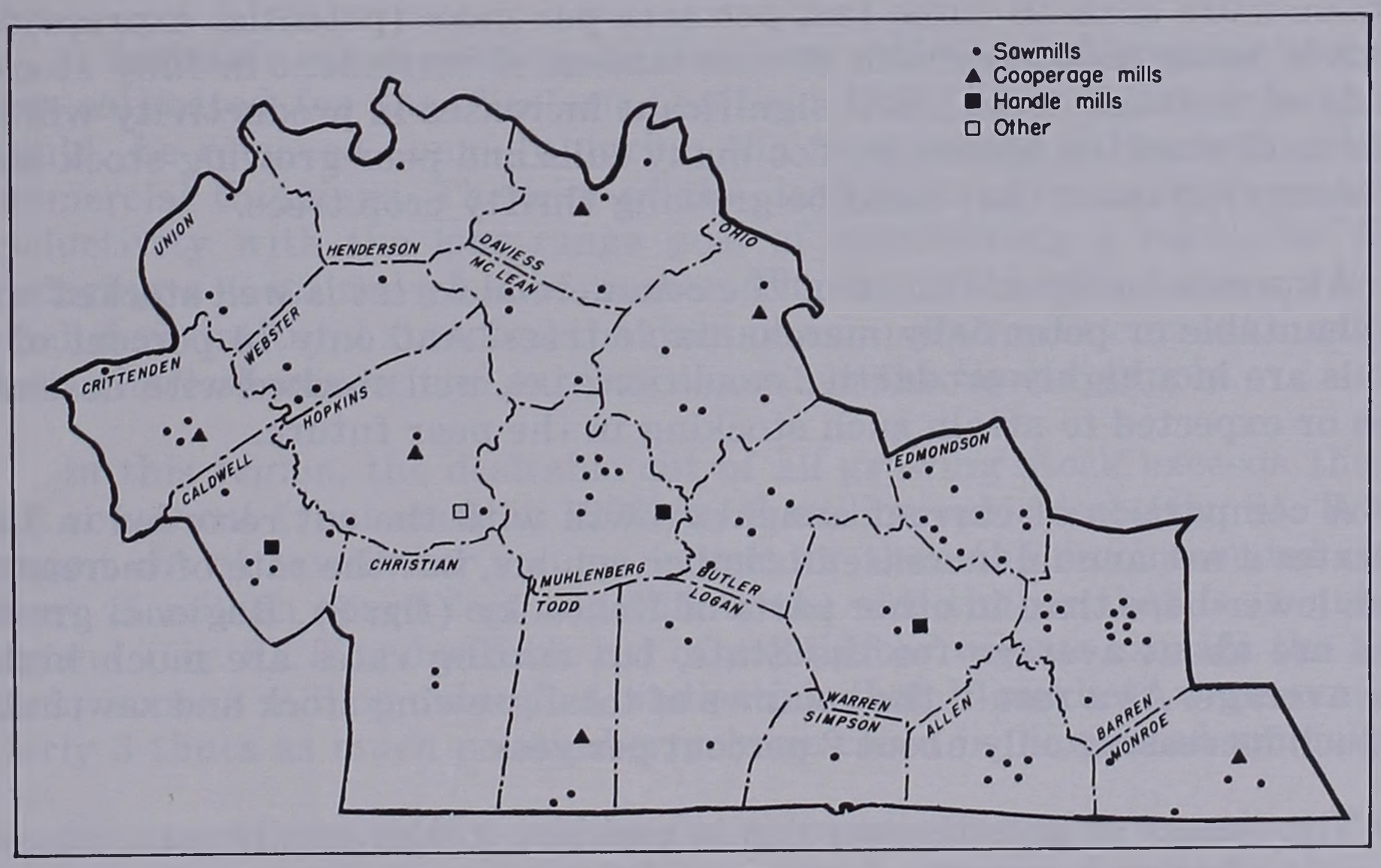

FIGURE 7. — Location of primary wood-using industries, 1963.

Almost nine-tenths of the growing stock cut in 1962 was from trees of sawtimber size. The harvest of saw log volume amounted to 189 million board feet and about half the sawtimber cut was from oak species. Yellow-poplar, beech, hickory, soft maple, and sweetgum ranked next in order of importance and together accounted for another third of the sawtimber cut. Most of the sweetgum and soft maple timber harvested in Kentucky came from this region.

THE CURRENT BALANCE BETWEEN GROWTH AND CUT

The current net annual growth of growing stock in the Western Coalfield Unit is about 53 million cubic feet, or 4.5 percent of the inventory before allowances are made for cutting. Sawtimber volume is growing at a rate of 278 million board feet or 6.6 percent per year. Annual growth averages about 29 cubic feet of growing stock and 151 board feet of sawtimber per acre.

The above growth rates are well below the potential of the region's forests. Virtually all the Western Coalfield woodland has the capacity to produce more than 50 cubic feet per acre per year (potential expressed in terms of mean annual growth at culmination of increment in fully stocked stands of desirable trees). But significant increases in productivity will not occur until stocking improves. Too many culls and poor growing-stock trees are occupying space that could be growing thrifty crop trees.

At present, only one-third of the commercial forest is well stocked with merchantable or potentially merchantable trees. And only 15 percent of all stands are in a highly productive condition; i.e., well stocked with desirable trees or expected to attain such stocking in the near future.

A comparison of current annual growth with the cut recorded in 1962 indicates a net annual increase in timber volume, but the rate of increase is much lower here than in other parts of Kentucky (fig. 8). Regional growth rates are about average for the State, but cutting rates are much higher than average. As a result, the volumes of total growing stock and sawtimber are each increasing only about 2 percent per year.

The excess of growth over cut is greatest in the smaller size classes; the ratio of volume growth to volume cut for poletimber being about 5 to 1. Growth exceeds cut for most species, but a few important timber species such as the select red oaks, beech, black walnut, and cottonwood are being cut at a faster rate than they are growing.

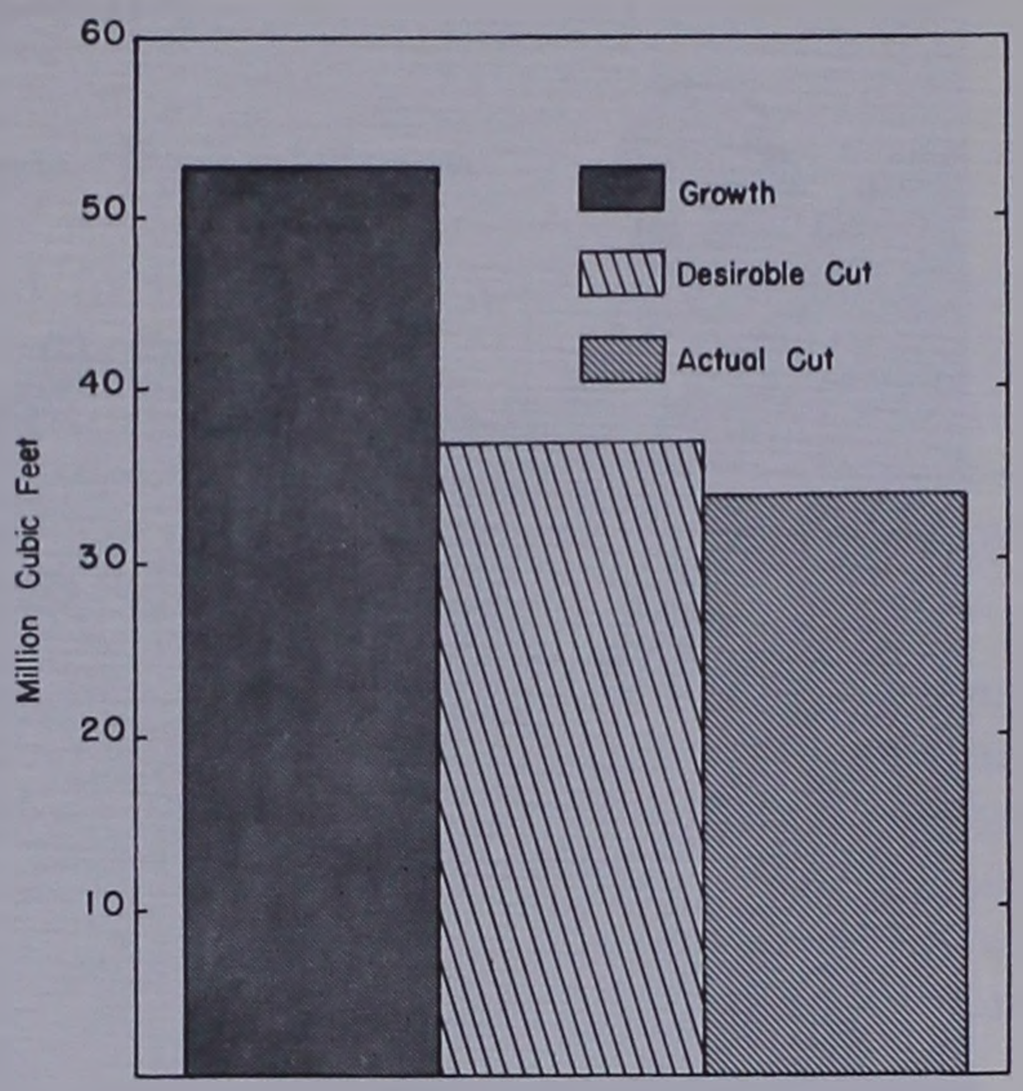

FIGURE 8. — Growth, desirable cut, and actual cut of growing stock, 1963.

MORE TIMBER CAN BE HARVESTED

A desirable cut of more than 36 million cubic feet of growing stock has been estimated for the Western Coalfield Unit. This is the volume that should be removed annually during the next decade in harvest cuts and commercial thinnings. The aim of the desirable cut is to improve timber productivity with the long-range goal of establishing a regulated forest producing a sustained yield of timber. The desirable cut provides a recommended silvicultural standard that can be compared with current cutting to show where shortages and surpluses occur in the timber supply.

In this region, the desirable cut of all growing stock exceeds the current actual cut (that made in 1962) by 3 million cubic feet (fig. 8). But the current cut of sawtimber volume is greater than the recommended cut by about 46 million board feet and this is the size timber that is in greatest demand (fig. 9). The desirable cut of poletimber volume exceeds the actual cut by some 8 million cubic feet, indicating that if markets were available, nearly 3 times as much poletimber volume could be harvested annually.

For many species, it would be silviculturally desirable to reduce the cut of large timber until the stocking improves. A surplus of desirable cut over actual cut exists for a few important species such as the white oaks and hickory, suggesting that more of this timber can be harvested. But deficits are found for most other species (fig. 10).

FIGURE 9. — In 1962, the cut of large timber from the region exceeded recommended levels.

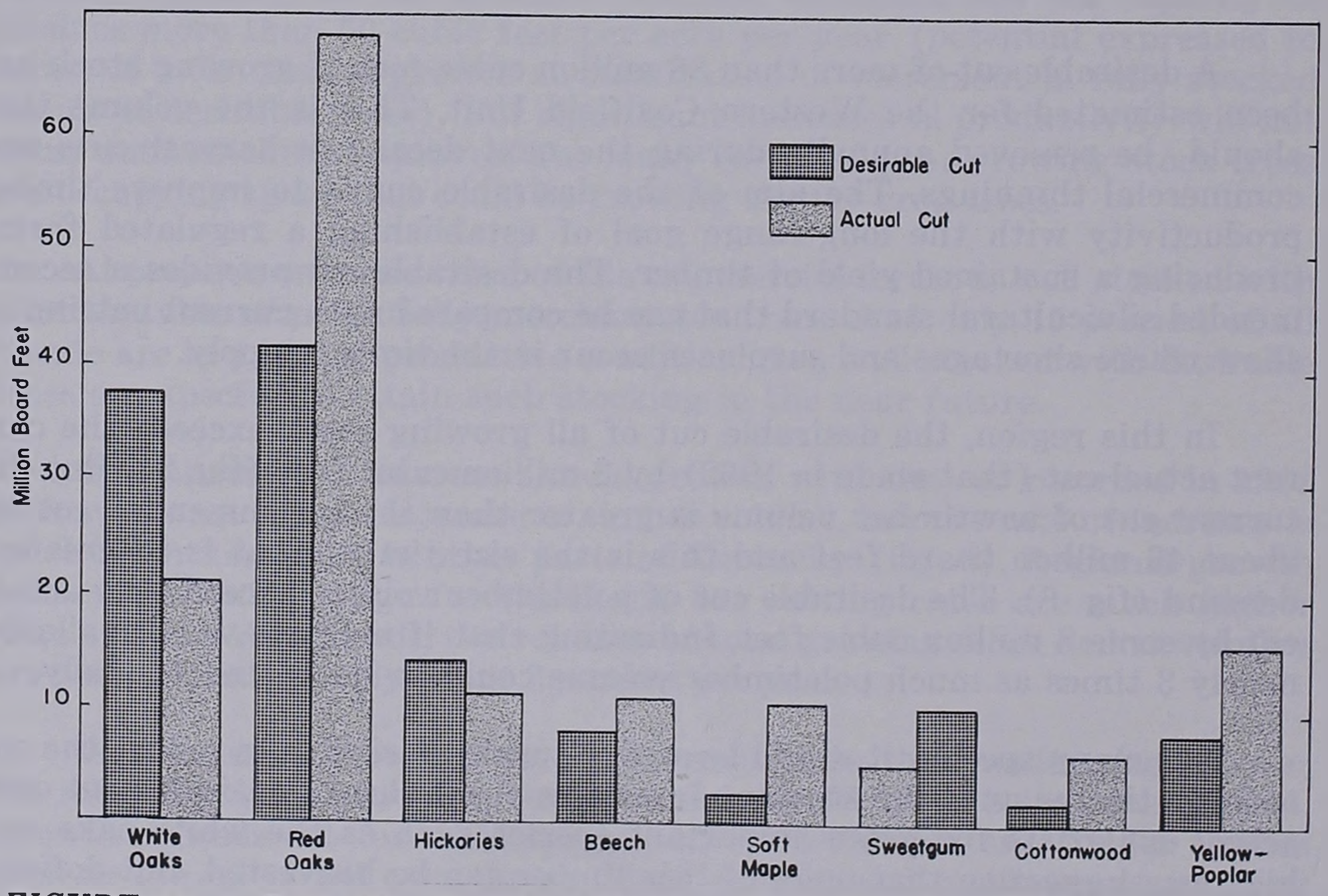

FIGURE 10. — Desirable cut and actual cut of sawtimber for selected species, 1963.

APPENDIX

Forest Survey Procedure

The resource statistics presented in this report were obtained from a sampling survey. The survey was designed to yield reliable statistics for large areas. It combined aerial photo interpretation and field work to minimize costs. Electronic data-processing machines were employed to reduce computing time and generate more usable statistics than could be done by hand methods.

To attain specific levels of statistical accuracy, triple sampling was used. A large number of points were first examined on aerial photographs to determine the proportions of forest and nonforest land. One-fourth of the forest points were stereoscopically classified as to forest type, stand size, stocking, and site. One-twelfth of these points were in turn examined on the ground. The ground classification provided a check on photo classification and a means of improving estimates of forest area.

At each forest ground-check point a plot was established. Trees were classified and measured as a basis for estimating timber volume, growth, mortality, and quality. Ownership was determined for each plot.

Timber-cut information was based on forest-industry production records for 1962, on stump counts at forest-inventory plots, cutting records from large owners, and utilization factors based on a logging-residue study.

Accuracy of Survey Estimate

Estimates of forest area and timber volume are subject to two kinds of errors: (1) nonsampling errors caused by mistakes in judgment, recording of measurements, or in calculations, and (2) sampling errors inherent in statistical work.

Nonsampling errors are not measurable and cannot be shown. They are avoided as much as possible through training of personnel, close supervision, and careful checking of all phases of the work.

Sampling errors are subject to the laws of chance and may be estimated by statistical methods. These errors are held to acceptable levels commensurate with the values involved and funds available by adjusting the survey design and the intensity of the sample. With a probability of two out of three (that is, relatively good) the accompanying table shows the accuracy of the data presented in this report. The sampling error of a survey is less for a large class or block than for a smaller class or other subdivision. Some of the resource statistics presented in this report have such large errors that it would be unwise to use them alone — but if they are combined with other figures the error may be reduced enough to warrant their use. Weak figures are shown to allow various combinations of data.

Guides for judging accuracy by size of area and by volume of growing stock and sawtimber

Commercial-forest land	Standard error of sampling	Growing-stock volumes	Standard error of sampling	Sawtimber volumes	Standard error of sampling
Acres	*Percent*	*Thousand cu. ft.*	*Percent*	*Thousand bd. ft.*	*Percent*
1,842,700	2.1	1,157,280	4.0	4,234,700	5.9
1,000,000	3.2	1,000,000	4.5	1,000,000	12.2
500,000	4.5	500,000	6.4	500,000	17.2
300,000	5.8	300,000	8.2	300,000	22.2
100,000	10.0	100,000	14.2	100,000	38.4
50,000	14.1	50,000	20.2	50,000	54.4
30,000	18.2	30,000	26.0	30,000	70.2
10,000	31.5	10,000	45.1	10,000	121.6
5,000	44.6	5,000	63.7		
3,000	57.5				

The occurrence of a (—) in the statistical tables of this report indicates one of two things:

(1) No units were measured by the inventory.

(2) The quantity of data measured was insignificant and did not warrant reporting.

Definition of Terms

Land and Forest Area

Gross area. — The entire area of land and water as determined by the Bureau of the Census.

Land area. — The area of dry land and land temporarily or partially covered by water such as marshes, swamps, and flood plains; streams, and sloughs less than ⅛ mile wide; and lakes, reservoirs, and ponds less than 40 acres in area.

Forest land. — Land at least 10 percent stocked by forest trees of any size, or formerly having such tree cover and not currently developed for nonforest use. Does not include urban or thickly settled residential and resort areas, city parks, orchards, farmsteads, improved roads, or land developed and maintained for nonforest use by fencing, seeding, and so forth. The minimum area for classification of forest land or classes of forest land was 1 acre. Roadside, streamside, and shelterbelt strips of timber having a crown width of at least 120 feet qualified as forest land. Unimproved roads and trails, streams, and clearings in forest land were included as forest if less than 120 feet wide.

Commercial-forest land. — Forest land that is producing or capable of producing crops of industrial wood and not withdrawn from timber utilization by statute or administrative regulation.

Noncommercial-forest land. — Unproductive forest land incapable of yielding crops of industrial wood because of adverse site conditions; and productive, public-forest land withdrawn from commercial timber use through statute or administrative regulation.

Ownership

Public. — All publicly owned land other than National Forest.

Forest industry. — Land owned by companies or individuals operating wood-using plants.

Farmer and miscellaneous private. — All privately owned land except forest industry land.

Forest Types

Forest type. — A classification of forest land based upon species composition considering all live trees.

Southern pine. — Forests in which 50 percent or more of the stocking is shortleaf or other southern yellow pines, singly or in combination.

Redcedar-hardwoods. — Forests in which 50 percent or more of the stocking is hardwoods but in which redcedar makes up at least 25 percent of the stocking. Included also are those areas where redcedar makes up most of the stocking.

Oak-pine. — Forests in which 50 percent or more of the stocking is hardwoods (usually upland oaks) but in which southern pine makes up at least 25 percent of the stocking.

White oak. — Forests in which 50 percent or more of the stocking is white oak, except stands that classify as redcedar-hardwoods or oak-pine.

Oak-hickory. — Forests in which 50 percent or more of the stocking is upland oaks or hickories, singly or in combination, except stands that classify as oak-pine, redcedar-hardwoods, or white oak.

Central mixed hardwoods. — Forests in which 50 percent or more of the stocking is a combination of hardwood species, principally yellow-poplar, maple, beech, basswood, black walnut, elm, and northern red oak, except stands that classify as redcedar-hardwoods, oak-pine, oak-hickory, maple-beech, or elm-ash-cottonwood.

Maple-beech. — Forests in which 50 percent or more of the stocking is maple or beech, singly or in combination, except stands that classify as redcedar-hardwoods or oak-pine.

Oak-gum-cypress. — Bottomland forests in which 50 percent or more of the stocking is blackgum, sweetgum, oak, or southern cypress, singly or in combination, except stands that classify as oak-pine.

Elm-ash-cottonwood. — Forests in which 50 percent or more of the stocking is elm, ash, or cottonwood, singly or in combination except stands that classify as redcedar-hardwoods or oak-pine.

Stand-Size Classes

Stand-size class. — A classification of forest land based on the predominant size of timber present– sawtimber, poletimber, or seedlings and saplings.

Sawtimber stands. — Stands at least 10 percent stocked with growing-stock trees, with half or more of this stocking in sawtimber or poletimber trees and with sawtimber stocking at least equal to poletimber stocking.

Poletimber stands. — Stands at least 10 percent stocked with growing-stock trees, and with half or more of this stocking in sawtimber and/or poletimber trees and with poletimber stocking exceeding that of sawtimber.

Seedling-sapling stands. — Stands at least 10 percent stocked with growing-stock trees and with seedlings and/or saplings comprising more than half of this stocking.

Nonstocked areas. — Commercial-forest land less than 10 percent stocked with growing-stock trees.

Stocking Classes

Stocking class. — A classification of commercial-forest land based on the percent of area occupied by growing-stock trees. *Growing-stock trees* include all live trees except culls.

Well stocked. — Stands that are 70 percent or more stocked with growing-stock trees.

Medium stocked. — Stands that are 40 to 69 percent stocked with growing-stock trees.

Poorly stocked. — Stands that are from 10 to 39 percent stocked with growing-stock trees.

Nonstocked. — Areas of commercial-forest land not qualifying as sawtimber, poletimber, or seedling and sapling stands. These areas may contain some volume but less than 10 percent of the growing space is effectively utilized by growing stock.

Area-Condition Classes

A classification of commercial-forest land based upon stocking by desirable growing-stock trees and conditions affecting current and prospective timber growth. *Desirable growing-stock trees* are those that have no serious defects in quality limiting present or prospective use. They have relatively high vigor and contain no pathogens that may result in death or serious deterioration before rotation age. These are the trees that would be favored in silvicultural operations.

Desirable. — Areas 70 percent or more stocked with desirable trees.

Moderate and favorable. — Areas 40 to 70 percent stocked with desirable trees and with 30 percent or less of the area having other trees and/or inhibiting vegetation or surface conditions that will prevent occupancy by desirable trees.

Moderate and unfavorable. — Areas 40 to 70 percent stocked with desirable trees and with more than 30 percent of the area having other trees and/or inhibiting vegetation or surface conditions that will prevent occupancy by desirable trees.

Poor but favorable. — Areas less than 40 percent stocked with desirable trees and with 30 percent or less of the area having other trees and/or inhibiting vegetation or surface conditions that prevent occupancy by desirable trees.

Poor and unfavorable. — Areas less than 40 percent stocked with desirable trees and with more than 30 percent of the area having other trees and/or inhibiting vegetation or surface conditions that prevent occupancy by desirable species.

Volume Classification

Growing-stock volume. — Cubic-foot volume of sound wood in the bole of sawtimber and poletimber trees from the stump to a minimum 4-inch-top diameter outside bark or to the point where the central stem breaks into limbs.

Sawtimber volume. — Net volume of the saw-log portion of live sawtimber trees in board feet, International ¼-inch rule. The saw-log portion extends from stump to a minimum top diameter outside bark of 6 inches for softwoods and 8 inches for hardwoods or to the point where defects reduce saw-log quality below Standard Log Grade 3 or Tie-and-Timber Grade.

Tree-Size Classes

Sawtimber trees. — Live trees of commercial species containing at least an 8-foot saw log. Softwoods must be at least 9 inches and hardwoods at least 11 inches d.b.h. outside bark.

Poletimber trees. — Live trees of commercial species at least 5 inches d.b.h. but smaller than sawtimber size, and of good form and vigor.

Saplings. — Live trees of commercial species 1 to 5 inches d.b.h. and of good form and vigor.

Seedlings. — Live trees of commercial species less than 1 inch d.b.h. that are expected to survive.

Growth

Net annual growth. — The annual change in volume of sound wood in live sawtimber and poletimber trees and the total volume of trees entering these classes through ingrowth less volume losses resulting from natural causes.

Growing-stock growth. — Net annual growth of poletimber and sawtimber trees in cubic feet.

Sawtimber growth. — Net annual growth of sawtimber trees in board feet, International ¼-inch rule.

Timber Cut

Timber cut from growing stock. — The net cubic-foot volume of sound wood in live sawtimber and poletimber trees cut for forest products during a specified year, including both roundwood products and logging residues.

Timber cut from sawtimber. — The net board-foot volume of live sawtimber trees cut for forest products during a specified year, including both roundwood products and logging residues.

Desirable cut (formerly called allowable cut). — The net volume of live sawtimber and poletimber trees that can be cut annually during the next 10 years in commercial-logging operations while maintaining or increasing growing stock and while effecting a reasonably even distribution of age classes below the rotation age selected for each type. It includes harvest and improvement cuts yielding 3 cords or more per acre, and one-tenth of the entire net volume of stands 10 or more years beyond the rotation age. Desirable cut includes all timber of merchantable size that should be cut from commercial-forest land in order to salvage, rejuvenate, or improve the stands and increase the growth without regard to restraints of ownership, inaccessibility, or the profit motive. Some of this timber may not be available for sale, too hard to get at or too scattered, or of currently unwanted species or quality. More forest products may be obtained by reducing the "forest capital."

Rotation ages for saw-log trees in extensively managed stands by forest-type and site-index classes

(In years)

Forest type	Site index (50-year height in feet)*						
	40	50	60	70	80	90	100+
Southern pine	120	110	90	--	--	--	--
Redcedar-hardwoods	120	110	90	--	--	--	--
Oak-pine	120	110	90	--	--	--	--
White oak	120	110	90	80	75	70	--
Oak-hickory	120	110	90	80	75	70	--
Central mixed hardwoods	--	110	90	80	75	70	60
Maple-beech	--	100	100	100	100	--	--
Oak-gum-cypress	--	--	--	80	75	70	60
Elm-ash-cottonwood†	--	--	--	80	70	60	60

* Except in the case of cottonwood for which it is total height at 25 years.
† The rotation for cottonwood is half of the age shown.

Miscellaneous Definitions

Site class. — A classification of commercial-forest land based on potential yields in cubic feet per acre of mean annual growth at culmination of increment in fully stocked stands of desirable trees.

D.b.h. (Diameter at breast height). — Tree diameter in inches measured outside the bark at a point 4½ feet above the ground.

Diameter class. — Where data are presented in 2-inch diameter classes, they include diameters from 1.0 inches below to 0.9 inches above the stated midpoint; e.g., trees 5.0 inches to and including 6.9 inches, are included in the 6-inch class.

Principal Commercial Tree Species of Kentucky[2]

Softwood Species

Cypress (baldcypress)	*Taxodium distichum* (L.) Rich.
Hemlock (eastern)	*Tsuga canadensis* (L.) Carr.
Pine group includes —	
Shortleaf pine	*Pinus echinata* Mill.
Other yellow pines:	
Pitch pine	*P. rigida* Mill.
Virginia pine	*P. virginiana* Mill.
White pine (eastern)	*P. strobus* L.
Redcedar (eastern)	*Juniperus virginiana* L.

Hardwood Species

Ash	*Fraxinus* L. species
Basswood	*Tilia* L. species
Beech (American)	*Fagus grandifolia* Ehrh.
Birch (yellow)	*Betula alleghaniensis* Britton
Blackgum	*Nyssa* L. species
Black walnut	*Juglans nigra* L.
Cottonwood (eastern)	*Populus deltoides* Bartr.
Hickory	*Carya* Nutt. species
Maple (hard) includes —	
Black maple	*Acer nigrum* Michx. f.
Sugar maple	*A. saccharum* Marsh.
Maple (soft) includes —	
Boxelder	*A. negundo* L.
Red maple	*A. rubrum* var. *rubrum* L.
Silver maple	*A. saccharinum* L.
Oak group includes —	
Select red oaks:	
Cherrybark oak	*Quercus falcata* var. *pagodaefolia* Ell.
Northern red oak	*Q. rubra* L.
Shumard oak	*Q. shumardii* Buckl.
Other red oaks:	
Black oak	*Q. velutina* Lam.
Pin oak	*Q. palustris* Muenchh.
Scarlet oak	*Q. coccinea* Muenchh.
Shingle oak	*Q. imbricaria* Michx.
Southern red oak	*Q. falcata* Michx.
Water oak	*Q. nigra* L.
Willow oak	*Q. phellos* L.

[2] The common and scientific names are based on: Little, Elbert L., Jr. CHECK LIST OF NATIVE AND NATURALIZED TREES OF THE UNITED STATES (INCLUDING ALASKA). U.S. Dept. Agr. Handb. 41, 472 pp. 1953.

Select white oaks:
- Bur oak ..... *Q. macrocarpa* Michx.
- Chinkapin oak ..... *Q. muehlenbergii* Engelm.
- Swamp chestnut oak ..... *Q. michauxii* Nutt.
- Swamp white oak ..... *Q. bicolor* Willd.
- White oak ..... *Q. alba* L.

Other white oaks:
- Chestnut oak ..... *Q. prinus* L.
- Overcup oak ..... *Q. lyrata* Walt.
- Post oak ..... *Q. stellata* var. *stellata* Wangenh.
- Sweetgum ..... *Liquidambar styraciflua* L.
- Yellow-poplar ..... *Liriodendron tulipifera* L.

Other hardwoods includes —
- Birch (river) ..... *Betula nigra* L.
- Buckeye (Ohio) ..... *Aesculus glabra* Willd.
- Buckeye (yellow) ..... *A. octandra* Marsh.
- Butternut ..... *Juglans cinerea* L.
- Cherry (black) ..... *Prunus serotina* Ehrh.
- Coffeetree (Kentucky) ..... *Gymnocladus dioicus* (L.) K. Koch.
- Cucumbertree ..... *Magnolia acuminata* L.
- Dogwood (flowering) ..... *Cornus florida* L.
- Elm ..... *Ulmus* L. species
- Hackberry ..... *Celtis occidentalis* L.
- Honeylocust ..... *Gleditsia triacanthos* L.
- Locust (black) ..... *Robinia pseudoacacia* L.
- Mulberry (red) ..... *Morus rubra* L.
- Osage-orange ..... *Maclura pomifera* (Raf.) Schneid.
- Persimmon (common) ..... *Diospyros virginiana* L.
- Sassafras ..... *Sassafras albidum* (Nutt.) Nees
- Sycamore (American) ..... *Platanus occidentalis* L.
- Willow (black) ..... *Salix nigra* Marsh.

Statistical Tables

The following tables present forest-resource data for the Western Coalfield Unit and each of its 20 counties. Tables 1-7 contain information on land and forest area; tables 8-12 information on numbers of trees and timber volume; and tables 13-18 information on growth, cut, and desirable cut. Data for individual counties are shown in tables 1, 4, 10, 14, and 18.

Table 1.--*Area of land and forest land by counties*
Western Coalfield Unit, Kentucky, 1963

County	Gross area*	Land area*	Forest land			Commercial forest as a percent of land area
			All forest	Non-commercial	Commercial	
	Acres	*Acres*	*Acres*	*Acres*	*Acres*	*Percent*
Allen	233,000	233,000	83,800	300	83,500	35.8
Barren	311,000	311,000	83,600	2,200	81,400	26.2
Butler	283,500	283,500	135,500	600	134,900	47.6
Caldwell	228,500	228,500	79,200	300	78,900	34.5
Christian	464,600	464,600	131,400	1,800	129,600	27.9
Crittenden	240,600	233,600	87,800	600	87,200	37.3
Daviess	304,600	298,200	70,200	200	70,000	23.5
Edmonson	194,600	194,600	117,100	41,200	75,900	39.0
Henderson	295,100	281,600	61,300	500	60,800	21.6
Hopkins	355,200	355,200	168,700	3,100	165,600	46.6
Logan	360,300	360,300	109,700	400	109,300	30.3
McLean	164,500	164,500	45,500	100	45,400	27.6
Monroe	213,800	213,800	99,000	600	98,400	46.0
Muhlenberg	308,500	308,500	140,900	900	140,000	45.4
Ohio	381,400	381,400	195,800	1,000	194,800	51.1
Simpson	153,000	153,000	23,300	100	23,200	15.2
Todd	240,600	240,600	61,700	600	61,100	25.4
Union	231,000	219,500	45,700	100	45,600	20.8
Warren	349,400	349,400	90,600	400	90,200	25.8
Webster	217,000	217,000	67,800	900	66,900	30.8
Total	5,530,200	5,491,800	1,898,600	55,900	1,842,700	33.6

*Includes 28,600 acres of water considered as land by the Bureau of Census.

Table 2. -- *Area of commercial-forest land by ownership and stand-size class*
Western Coalfield Unit, Kentucky, 1963

(In acres)

Ownership class	All stands	Saw-timber	Pole-timber	Seedlings and saplings	Non-stocked
Public	23,100	10,800	5,600	6,300	400
Forest industry	8,200	3,800	2,000	2,200	200
Farmer and miscellaneous private	1,811,400	850,200	437,000	495,000	29,200
All ownerships	1,842,700	864,800	444,600	503,500	29,800

Table 3. -- *Area of commercial-forest land by stocking and stand-size class*
Western Coalfield Unit, Kentucky, 1963

(In acres)

Stocking class (percent)	All stands	Saw-timber	Pole-timber	Seedlings and saplings	Non-stocked
70 or more	604,300	369,500	141,700	93,100	--
40-70	951,100	401,500	257,600	292,000	--
10-40	257,500	93,800	45,300	118,400	--
Less than 10	29,800	--	--	--	29,800
All classes	1,842,700	864,800	444,600	503,500	29,800

Table 4. -- *Area of commercial-forest land by forest type and stand-size class by county*
Western Coalfield Unit, Kentucky, 1963

(In acres)

ALL COUNTIES

Forest type	All stands	Saw-timber	Pole-timber	Seedlings and saplings	Non-stocked
Southern pine	16,700	--	2,600	--	14,100
Redcedar-hardwoods	116,300	14,600	14,100	87,600	--
Oak-pine	15,700	4,300	4,800	6,600	--
White oak	49,000	29,400	19,600	--	--
Oak-hickory	724,100	375,500	216,100	129,500	3,000
Central mixed hardwoods	579,100	211,100	153,900	201,400	12,700
Maple-beech	46,000	36,000	5,000	5,000	--
Oak-gum-cypress	69,600	51,900	5,800	11,900	--
Elm-ash-cottonwood	226,200	142,000	22,700	61,500	--
All types	1,842,700	864,800	444,600	503,500	29,800

ALLEN COUNTY

Southern pine	800	--	--	--	800
Redcedar-hardwoods	4,600	600	400	3,600	--
Oak-pine	600	--	400	200	--
White oak	3,200	2,300	900	--	--
Oak-hickory	34,900	19,800	10,500	4,400	200
Central mixed hardwoods	26,500	10,600	6,000	9,500	400
Maple-beech	2,000	1,400	300	300	--
Oak-gum-cypress	2,900	2,000	200	700	--
Elm-ash-cottonwood	8,000	4,900	900	2,200	--
All types	83,500	41,600	19,600	20,900	1,400

BARREN COUNTY

Southern pine	1,500	--	600	--	900
Redcedar-hardwoods	5,800	600	700	4,500	--
Oak-pine	1,500	1,000	300	200	--
White oak	2,100	1,600	500	--	--
Oak-hickory	31,700	17,400	8,900	5,400	--
Central mixed hardwoods	26,100	9,700	5,500	10,200	700
Maple-beech	1,500	1,100	200	200	--
Oak-gum-cypress	2,600	1,800	300	500	--
Elm-ash-cottonwood	8,600	5,000	900	2,700	--
All types	81,400	38,200	17,900	23,700	1,600

Table 4. -- *Area of commercial-forest land by forest type and stand-size class by county*
Western Coalfield Unit, Kentucky, 1963 -- Continued

(In acres)

BUTLER COUNTY

Forest type	All stands	Saw-timber	Pole-timber	Seedlings and saplings	Non-stocked
Southern pine	600	--	--	--	600
Redcedar-hardwoods	9,700	1,200	1,400	7,100	--
Oak-pine	900	--	800	100	--
White oak	4,800	3,400	1,400	--	--
Oak-hickory	55,500	31,500	12,800	10,800	400
Central mixed hardwoods	41,400	17,000	10,900	13,200	300
Maple-beech	2,700	2,100	300	300	--
Oak-gum-cypress	4,300	3,500	100	700	--
Elm-ash-cottonwood	15,000	9,600	1,400	4,000	--
All types	134,900	68,300	29,100	36,200	1,300

CALDWELL COUNTY

Southern pine	700	--	--	--	700
Redcedar-hardwoods	5,000	800	400	3,800	--
Oak-pine	1,000	400	200	400	--
White oak	2,300	1,200	1,100	--	--
Oak-hickory	35,400	17,100	11,300	7,000	--
Central mixed hardwoods	23,800	9,500	6,800	7,400	100
Maple-beech	2,500	2,100	200	200	--
Oak-gum-cypress	1,800	1,300	200	300	--
Elm-ash-cottonwood	6,400	3,200	900	2,300	--
All types	78,900	35,600	21,100	21,400	800

CHRISTIAN COUNTY

Southern pine	800	--	400	--	400
Redcedar-hardwoods	7,500	800	1,000	5,700	--
Oak-pine	700	--	500	200	--
White oak	3,900	2,400	1,500	--	--
Oak-hickory	52,300	27,600	13,700	10,900	100
Central mixed hardwoods	39,500	15,900	10,800	12,500	300
Maple-beech	3,500	3,100	200	200	--
Oak-gum-cypress	4,700	4,300	100	300	--
Elm-ash-cottonwood	16,700	12,100	1,300	3,300	--
All types	129,600	66,200	29,500	33,100	800

CRITTENDEN COUNTY

Southern pine	300	--	--	--	300
Redcedar-hardwoods	5,200	900	1,000	3,300	--
Oak-pine	900	--	200	700	--
White oak	2,200	1,100	1,100	--	--
Oak-hickory	37,100	18,500	11,900	6,700	--
Central mixed hardwoods	27,600	10,000	8,000	8,800	800
Maple-beech	1,800	1,600	100	100	--
Oak-gum-cypress	2,500	1,300	300	900	--
Elm-ash-cottonwood	9,600	5,400	1,000	3,200	--
All types	87,200	38,800	23,600	23,700	1,100

Table 4. -- *Area of commercial-forest land by forest type and stand-size class by county*
Western Coalfield Unit, Kentucky, 1963 -- Continued

(In acres)

DAVIESS COUNTY

Forest type	All stands	Saw-timber	Pole-timber	Seedlings and saplings	Non-stocked
Southern pine	800	--	--	--	800
Redcedar-hardwoods	4,300	600	700	3,000	--
Oak-pine	400	--	100	300	--
White oak	1,000	500	500	--	--
Oak-hickory	22,000	10,600	6,400	5,000	--
Central mixed hardwoods	22,200	5,700	6,200	9,600	700
Maple-beech	1,200	1,000	100	100	--
Oak-gum-cypress	4,700	3,900	200	600	--
Elm-ash-cottonwood	13,400	8,300	1,000	4,100	--
All types	70,000	30,600	15,200	22,700	1,500

EDMONSON COUNTY

Southern pine	1,900	--	1,200	--	700
Redcedar-hardwoods	5,700	600	400	4,700	--
Oak-pine	2,200	1,800	200	200	--
White oak	2,400	1,700	700	--	--
Oak-hickory	28,900	16,100	8,500	4,300	--
Central mixed hardwoods	23,800	10,300	5,100	7,500	900
Maple-beech	1,900	1,300	300	300	--
Oak-gum-cypress	2,900	2,000	200	700	--
Elm-ash-cottonwood	6,200	3,900	800	1,500	--
All types	75,900	37,700	17,400	19,200	1,600

HENDERSON COUNTY

Southern pine	500	--	--	--	500
Redcedar-hardwoods	2,100	300	300	1,500	--
Oak-pine	200	--	--	200	--
White-oak	800	400	400	--	--
Oak-hickory	14,800	6,900	5,000	2,800	100
Central mixed hardwoods	21,200	4,100	8,900	7,600	600
Maple-beech	600	400	100	100	--
Oak-gum-cypress	4,700	4,300	100	300	--
Elm-ash-cottonwood	15,900	10,300	800	4,800	--
All types	60,800	26,700	15,600	17,300	1,200

Table 4. -- *Area of commercial-forest land by forest type and stand-size class by county*
Western Coalfield Unit, Kentucky, 1963 -- Continued

(In acres)

HOPKINS COUNTY

Southern pine	600	--	--	--	600
Redcedar-hardwoods	9,600	1,300	1,200	7,100	--
Oak-pine	800	--	400	400	--
White oak	4,200	2,500	1,700	--	--
Oak-hickory	68,300	35,600	18,900	13,300	500
Central mixed hardwoods	51,500	19,500	16,800	14,500	700
Maple-beech	4,500	3,500	500	500	--
Oak-gum-cypress	6,200	4,700	600	900	--
Elm-ash-cottonwood	19,900	13,300	2,000	4,600	--
All types	165,600	80,400	42,100	41,300	1,800

LOGAN COUNTY

Forest type	All stands	Saw-timber	Pole-timber	Seedlings and saplings	Non-stocked
Southern pine	1,300	--	--	--	1,300
Redcedar-hardwoods	6,900	900	400	5,600	--
Oak-pine	500	--	100	400	--
White oak	2,800	1,600	1,200	--	--
Oak-hickory	46,200	21,300	15,400	9,300	200
Central mixed hardwoods	35,500	12,500	8,900	13,300	800
Maple-beech	2,900	2,300	300	300	--
Oak-gum-cypress	3,300	2,000	500	800	--
Elm-ash-cottonwood	9,900	5,700	1,200	3,000	--
All types	109,300	46,300	28,000	32,700	2,300

McLEAN COUNTY

Southern pine	500	--	--	--	500
Redcedar-hardwoods	1,700	200	200	1,300	--
Oak-pine	500	--	100	400	--
White oak	900	600	300	--	--
Oak-hickory	13,400	6,900	4,000	2,500	--
Central mixed hardwoods	13,800	4,400	4,600	4,600	200
Maple-beech	1,100	700	200	200	--
Oak-gum-cypress	3,100	2,700	--	400	--
Elm-ash-cottonwood	10,400	6,600	900	2,900	--
All types	45,400	22,100	10,300	12,300	700

Table 4. -- *Area of commercial-forest land by forest type and stand-size class by county*
Western Coalfield Unit, Kentucky, 1963 -- Continued

(In acres)

MONROE COUNTY

Southern pine	1,400	--	400	--	1,000
Redcedar-hardwoods	6,900	800	800	5,300	--
Oak-pine	800	300	100	400	--
White oak	2,700	1,500	1,200	--	--
Oak-hickory	42,100	22,800	13,800	5,500	--
Central mixed hardwoods	28,900	12,300	6,500	9,500	600
Maple-beech	3,700	2,700	500	500	--
Oak-gum-cypress	2,900	1,800	600	500	--
Elm-ash-cottonwood	9,000	5,700	1,400	1,900	--
All types	98,400	47,900	25,300	23,600	1,600

MUHLENBERG COUNTY

Southern pine	400	--	--	--	400
Redcedar-hardwoods	9,600	1,200	1,100	7,300	--
Oak-pine	800	--	500	300	--
White oak	4,000	2,300	1,700	--	--
Oak-hickory	56,500	29,400	17,500	8,900	700
Central mixed hardwoods	42,800	16,700	11,600	13,700	800
Maple-beech	3,900	3,100	400	400	--
Oak-gum-cypress	3,700	2,400	400	900	--
Elm-ash-cottonwood	18,300	13,300	1,600	3,400	--
All types	140,000	68,400	34,800	34,900	1,900

OHIO COUNTY

Forest type	All stands	Saw-timber	Pole-timber	Seedlings and saplings	Non-stocked
Southern pine	1,700	--	--	--	1,700
Redcedar-hardwoods	11,400	1,300	1,200	8,900	--
Oak-pine	1,900	400	100	1,400	--
White oak	4,600	2,200	2,400	--	--
Oak-hickory	79,000	39,900	26,200	12,800	100
Central mixed hardwoods	60,500	22,600	14,400	21,200	2,300
Maple-beech	6,200	4,800	700	700	--
Oak-gum-cypress	9,700	6,800	1,200	1,700	--
Elm-ash-cottonwood	19,800	13,600	2,500	3,700	--
All types	194,800	91,600	48,700	50,400	4,100

Table 4. -- *Area of commercial-forest land by forest type and stand-size class by county*
Western Coalfield Unit, Kentucky, 1963

(In acres)

SIMPSON COUNTY

Southern pine	400	--	--	--	400
Redcedar-hardwoods	1,400	200	100	1,100	--
Oak-pine	--	--	--	--	--
White oak	100	--	100	--	--
Oak-hickory	8,500	3,900	3,100	1,400	100
Central mixed hardwoods	8,300	2,700	1,500	3,900	200
Maple-beech	600	600	---	--	--
Oak-gum-cypress	700	600	100	--	--
Elm-ash-cottonwood	3,200	1,600	300	1,300	--
All types	23,200	9,600	5,200	7,700	700

TODD COUNTY

Southern pine	200	--	--	--	200
Redcedar-hardwoods	5,900	600	1,200	4,100	--
Oak-pine	300	--	300	--	--
White oak	1,600	1,100	500	--	--
Oak-hickory	24,200	13,200	5,900	4,700	400
Central mixed hardwoods	18,500	7,200	4,300	6,900	100
Maple-beech	700	700	--	--	--
Oak-gum-cypress	1,100	700	--	400	--
Elm-ash-cottonwood	8,600	5,200	600	2,800	--
All types	61,100	28,700	12,800	18,900	700

UNION COUNTY

Southern pine	1,100	--	--	--	1,100
Redcedar-hardwoods	3,000	300	100	2,600	--
Oak-pine	200	--	100	100	--
White oak	500	200	300	--	--
Oak-hickory	11,000	4,500	3,200	3,200	100
Central mixed hardwoods	17,000	3,000	3,800	9,200	1,000
Maple-beech	400	200	100	100	--
Oak-gum-cypress	3,100	2,400	100	600	--
Elm-ash-cottonwood	9,300	4,900	800	3,600	--
All types	45,600	15,500	8,500	19,400	2,200

Table 4. -- *Area of commercial-forest land by forest type and stand-size class by county*
Western Coalfield Unit, Kentucky, 1963 -- Continued

(In acres)

WARREN COUNTY

Forest type	All stands	Saw-timber	Pole-timber	Seedlings and saplings	Non-stocked
Southern pine	500	--	--	--	500
Redcedar-hardwoods	5,700	800	800	4,100	--
Oak-pine	1,000	400	300	300	--
White oak	3,200	1,900	1,300	--	--
Oak-hickory	38,200	21,000	11,600	5,500	100
Central mixed hardwoods	28,100	11,400	6,800	9,700	200
Maple-beech	2,900	2,300	300	300	--
Oak-gum-cypress	2,200	1,800	200	200	--
Elm-ash-cottonwood	8,400	4,400	1,300	2,700	--
All types	90,200	44,000	22,600	22,800	800

WEBSTER COUNTY

Southern pine	700	--	--	--	700
Redcedar-hardwoods	4,300	600	700	3,000	--
Oak-pine	500	--	100	400	--
White oak	1,700	900	800	--	--
Oak-hickory	24,100	11,500	7,500	5,100	--
Central mixed hardwoods	22,100	6,000	6,500	8,600	1,000
Maple-beech	1,400	1,000	200	200	--
Oak-gum-cypress	2,500	1,600	400	500	--
Elm-ash-cottonwood	9,600	5,000	1,100	3,500	--
All types	66,900	26,600	17,300	21,300	1,700

Table 5. -- *Area of commercial-forest land by forest type and site class*
Western Coalfield Unit, Kentucky, 1963

(In acres)

Forest type	All sites	Site class (potential growth per acre per year in cubic feet)			
		120 or more	85 to 120	50 to 85	Less than 50
Southern pine	16,700	--	14,100	2,600	--
Redcedar-hardwoods	116,300	--	65,100	51,200	--
Oak-pine	15,700	--	15,700	--	--
White oak	49,000	--	38,800	10,200	--
Oak-hickory	724,100	--	439,400	284,700	--
Central mixed hardwoods	579,100	--	229,000	297,000	53,100
Maple-beech	46,000	--	28,500	11,200	6,300
Oak-gum-cypress	69,600	--	30,500	39,100	--
Elm-ash-cottonwood	226,200	--	75,500	146,800	3,900
All types	1,842,700	--	936,600	842,800	63,300

Table 6.--*Area of commercial-forest land by forest type and stand-age class*
Western Coalfield Unit, Kentucky, 1963

(In acres)

Forest type	All ages	Less than 9	10-19	20-29	30-39	40-49	50-59	60-79	80-99	100 or more
Southern pine	16,700	9,900	4,200	--	2,600	--	--	--	--	--
Redcedar-hardwoods	116,300	16,400	8,100	52,700	20,400	8,800	--	--	9,900	--
Oak-pine	15,700	--	--	--	--	4,300	4,800	6,600	--	--
White oak	49,000	--	4,200	--	4,800	5,800	9,400	16,900	--	7,900
Oak-hickory	724,100	11,400	47,300	106,800	123,800	101,000	155,900	72,300	50,600	55,000
Central mixed hardwoods	579,100	25,400	67,500	125,400	113,200	107,600	56,200	30,700	25,500	27,600
Maple-beech	46,000	--	--	--	10,200	4,900	13,300	3,400	11,200	3,000
Oak-gum-cypress	69,600	--	12,000	--	3,900	29,200	15,000	--	9,500	--
Elm-ash-cottonwood	226,200	7,200	18,800	58,900	59,000	43,400	26,900	8,100	3,900	--
All types	1,842,700	70,300	162,100	343,800	337,900	305,000	281,500	138,000	110,600	93,500

Table 7.--*Area of commercial-forest land by forest type and area-condition class*
Western Coalfield, Unit Kentucky, 1963

(In acres)

Forest type	All area conditions	Desirable	Moderate and favorable	Moderate and unfavorable	Poor but favorable	Poor and unfavorable
Southern pine	16,700	--	--	--	8,800	7,900
Redcedar-hardwoods	116,300	--	24,100	27,200	12,200	52,800
Oak-pine	15,700	--	--	--	--	15,700
White oak	49,000	--	23,600	13,500	--	11,900
Oak-hickory	724,100	9,100	145,200	67,300	77,000	425,500
Central mixed hardwoods	579,100	4,400	46,100	58,000	109,500	361,100
Maple-beech	46,000	--	--	2,900	--	43,100
Oak-gum-cypress	69,600	--	--	9,900	21,900	37,800
Elm-ash-cottonwood	226,200	1,700	22,000	27,200	9,900	165,400
All types	1,842,700	15,200	261,000	206,000	239,300	1,121,200

Table 8. -- *Number of growing-stock trees on commercial-forest land by diameter class and species group*
Western Coalfield Unit, Kentucky, 1963

(In thousand trees)

D.b.h. class (inches)	All species	Softwoods	Hardwoods
2	280,880	18,090	262,790
4	108,960	6,520	102,440
6	53,080	2,680	50,400
8	34,460	1,030	33,430
10	23,690	610	23,080
12	13,550	180	13,370
14	7,740	70	7,670
16	4,470	10	4,460
18	2,580	50	2,530
20	1,250	--	1,250
22	520	--	520
24+	830	40	790
All diameter classes	532,010	29,280	502,730

Table 9.--*Volume of growing stock and sawtimber on commercial-forest land by ownership and species group*
Western Coalfield Unit, Kentucky, 1963

Ownership class	Growing stock			Sawtimber		
	All species	Softwoods	Hardwoods	All species	Softwoods	Hardwoods
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**	*Thousand bd. ft.**	*Thousand bd. ft.**
Public	2,190	--	2,190	8,230	--	8,230
Forest industry	5,130	100	5,030	18,790	370	18,420
Farmer and miscellaneous private	1,149,960	21,290	1,128,670	4,207,680	82,020	4,125,660
All ownerships	1,157,280	21,390	1,135,890	4,234,700	82,390	4,152,310

*International 1/4-inch rule.

Table 10.--*Volume of growing stock and sawtimber on commercial-forest land by species and kind of material*
Western Coalfield Unit, Kentucky, 1963

Species	Growing stock			Sawtimber		
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	In other stands
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**	*Thousand bd. ft.**	*Thousand bd. ft.**
Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	3,230	1,810	1,420	8,230	8,230	--
Hemlock	370	--	370	2,450	2,450	--
Cypress	5,320	--	5,320	45,430	45,430	--
Redcedar	12,470	6,110	6,360	26,280	21,630	4,650
Total softwoods	21,390	7,920	13,470	82,390	77,740	4,650
Hardwoods:						
Select white oak	164,190	54,210	109,980	660,450	537,300	123,150
Select red oak	77,800	21,400	56,400	357,220	302,670	54,550
Other white oak	65,830	26,810	39,020	232,030	156,890	75,140
Other red oak	203,290	58,670	144,620	886,340	714,360	171,980
Hickories	159,650	84,630	75,020	442,630	341,230	101,400
Hard maple	41,800	27,520	14,280	82,750	70,240	12,510
Beech	41,500	11,680	29,820	195,090	170,350	24,740
Black walnut	11,840	5,230	6,610	36,950	32,860	4,090
Ash	49,110	29,850	19,260	104,820	94,660	10,160
Soft maple	37,670	12,640	25,030	140,770	115,760	25,010
Sweetgum	61,560	23,100	38,460	224,340	200,280	24,060
Blackgum	23,780	9,060	14,720	84,650	74,540	10,110
Cottonwood	14,520	2,030	12,490	78,100	75,710	2,390
Yellow-poplar	49,890	11,060	38,830	241,760	178,200	63,560
Basswood	240	--	240	1,550	--	1,550
Other	133,220	67,540	65,680	382,860	338,550	44,310
Total hardwoods	1,135,890	445,430	690,460	4,152,310	3,403,600	748,710
All species	1,157,280	453,350	703,930	4,234,700	3,481,340	753,360

ALLEN COUNTY

Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	60	50	10	--	--	--
Hemlock	10	--	10	80	80	--
Cypress	280	--	280	2,350	2,350	--
Redcedar	600	290	310	1,350	1,150	200
Total softwoods	950	340	610	3,780	3,580	200
Hardwoods:						
Select white oak	8,460	2,560	5,900	35,850	30,540	5,310
Select red oak	3,630	990	2,640	16,710	14,110	2,600
Other white oak	3,180	1,250	1,930	11,660	8,410	3,250
Other red oak	8,980	2,620	6,360	39,040	32,120	6,920
Hickories	8,160	4,320	3,840	22,620	17,610	5,010
Hard maple	2,080	1,330	750	4,380	3,690	690
Beech	2,110	600	1,510	9,800	8,590	1,210
Black walnut	630	240	390	2,140	1,950	190
Ash	2,230	1,330	900	4,800	4,330	470
Soft maple	1,380	400	980	5,520	4,890	630
Sweetgum	1,850	730	1,120	6,400	5,640	760
Blackgum	1,170	420	750	4,260	3,750	510
Cottonwood	560	90	470	2,960	2,950	10
Yellow-poplar	2,320	510	1,810	11,290	8,590	2,700
Basswood	20	--	20	90	--	90
Other	5,920	3,060	2,860	16,610	14,890	1,720
Total hardwoods	52,680	20,450	32,230	194,130	162,060	32,070
All species	53,630	20,790	32,840	197,910	165,640	32,270

* International ¼-inch rule.

Table 10. -- *Volume of growing stock and sawtimber on commercial-forest land by species and kind of material Western Coalfield Unit, Kentucky, 1963 -- Continued*

BARREN COUNTY

Species	Growing stock			Sawtimber		
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	In other stands
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**	*Thousand bd. ft.**	*Thousand bd. ft.**
Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	520	220	300	3,660	3,660	--
Hemlock	30	--	30	370	370	--
Cypress	280	--	280	4,240	4,240	--
Redcedar	550	280	270	1,750	1,500	250
Total softwoods	1,380	500	880	10,020	9,770	250
Hardwoods:						
Select white oak	7,030	2,140	4,890	46,460	37,930	8,530
Select red oak	3,220	920	2,300	22,380	18,770	3,610
Other white oak	2,900	1,220	1,680	15,470	10,680	4,790
Other red oak	8,190	2,430	5,760	54,100	44,990	9,110
Hickories	6,700	3,560	3,140	28,320	22,300	6,020
Hard maple	1,790	1,110	680	5,940	5,110	830
Beech	1,650	470	1,180	12,730	11,090	1,640
Black walnut	510	210	300	2,490	2,230	260
Ash	1,910	1,160	750	6,290	5,650	640
Soft maple	1,420	430	990	8,260	7,290	970
Sweetgum	1,760	680	1,080	9,370	8,200	1,170
Blackgum	1,030	380	650	5,780	5,200	580
Cottonwood	560	80	480	5,300	5,280	20
Yellow-poplar	1,880	380	1,500	14,370	11,020	3,350
Basswood	--	--	--	70	--	70
Other	5,380	2,750	2,630	22,980	20,390	2,590
Total hardwoods	45,930	17,920	28,010	260,310	216,130	44,180
All species	47,310	18,420	28,890	270,330	225,900	44,430

BUTLER COUNTY

Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	110	110	--	--	--	--
Hemlock	20	--	20	160	160	--
Cypress	50	--	50	400	400	--
Redcedar	1,050	490	560	2,400	2,030	370
Total softwoods	1,230	600	630	2,960	2,590	370
Hardwoods:						
Select white oak	13,040	3,760	9,280	56,490	48,780	7,710
Select red oak	5,830	1,480	4,350	27,560	24,510	3,050
Other white oak	4,630	1,800	2,830	17,190	12,660	4,530
Other red oak	15,270	4,190	11,080	68,500	57,530	10,970
Hickories	12,980	6,650	6,330	37,260	29,890	7,370
Hard maple	3,250	2,010	1,240	7,190	6,220	970
Beech	3,270	900	2,370	15,310	13,480	1,830
Black walnut	1,070	410	660	3,700	3,500	200
Ash	3,850	2,300	1,550	8,380	7,740	640
Soft maple	2,370	670	1,700	9,700	8,520	1,180
Sweetgum	4,040	1,580	2,460	14,340	13,020	1,320
Blackgum	2,060	750	1,310	7,390	6,400	990
Cottonwood	370	80	290	1,850	1,760	90
Yellow-poplar	3,430	800	2,630	16,460	12,590	3,870
Basswood	20	--	20	130	--	130
Other	10,410	5,050	5,360	31,270	28,420	2,850
Total hardwoods	85,890	32,430	53,460	322,720	275,020	47,700
All species	87,120	33,030	54,090	325,680	277,610	48,070

* International ¼-inch rule.

Table 10. -- *Volume of growing stock and sawtimber on commercial-forest land by species and kind of material Western Coalfield Unit, Kentucky, 1963 -- Continued*

CALDWELL COUNTY

Species	Growing stock			Sawtimber		
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	In other stands
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**	*Thousand bd. ft**	*Thousand bd. ft.**
Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	170	40	130	760	760	--
Hemlock	10	--	10	60	60	--
Cypress	190	--	190	1,570	1,570	--
Redcedar	550	270	280	1,190	930	260
Total softwoods	920	310	610	3,580	3,320	260
Hardwoods:						
Select white oak	7,530	2,610	4,920	29,260	22,800	6,460
Select red oak	3,310	1,050	2,260	14,160	11,560	2,600
Other white oak	3,250	1,350	1,900	11,230	7,510	3,720
Other red oak	8,490	2,700	5,790	35,380	27,150	8,230
Hickories	7,490	4,170	3,320	19,300	13,900	5,400
Hard maple	1,940	1,290	650	3,770	3,190	580
Beech	1,960	540	1,420	9,260	8,160	1,100
Black walnut	540	250	290	1,690	1,450	240
Ash	1,780	1,130	650	3,480	2,990	490
Soft maple	1,360	420	940	5,380	4,450	930
Sweetgum	1,640	590	1,050	6,050	5,160	890
Blackgum	890	360	530	3,080	2,620	460
Cottonwood	430	70	360	2,190	2,170	20
Yellow-poplar	2,210	480	1,730	10,720	8,100	2,620
Basswood	10	--	10	60	--	60
Other	5,070	2,740	2,330	13,500	11,600	1,900
Total hardwoods	47,900	19,750	28,150	168,510	132,810	35,700
All species	48,820	20,060	28,760	172,090	136,130	35,960

CHRISTIAN COUNTY

Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	230	230	--	--	--	--
Hemlock	70	--	70	470	470	--
Cypress	90	--	90	780	780	--
Redcedar	880	440	440	1,900	1,560	340
Total softwoods	1,270	670	600	3,150	2,810	340
Hardwoods:						
Select white oak	12,190	4,070	8,120	48,960	41,570	7,390
Select red oak	5,500	1,570	3,930	24,890	21,900	2,990
Other white oak	4,750	1,970	2,780	16,660	12,010	4,650
Other red oak	14,150	3,920	10,230	63,230	52,690	10,540
Hickories	11,760	6,060	5,700	33,520	26,080	7,440
Hard maple	3,390	2,130	1,260	7,220	6,170	1,050
Beech	3,330	820	2,510	16,850	15,070	1,780
Black walnut	1,020	440	580	3,200	2,990	210
Ash	3,550	2,170	1,380	7,520	6,720	800
Soft maple	3,150	1,170	1,980	11,000	10,030	970
Sweetgum	4,200	1,450	2,750	16,090	14,950	1,140
Blackgum	1,930	720	1,210	6,950	6,040	910
Cottonwood	540	80	460	2,570	2,470	100
Yellow-poplar	3,410	760	2,650	16,420	12,620	3,800
Basswood	20	--	20	150	--	150
Other	10,040	4,700	5,340	31,280	28,590	2,690
Total hardwoods	82,930	32,030	50,900	306,510	259,900	46,610
All species	84,200	32,700	51,500	309,660	262,710	46,950

* International ¼-inch rule.

Table 10. -- *Volume of growing stock and sawtimber on commercial-forest land by species and kind of material Western Coalfield Unit, Kentucky, 1963 -- Continued*

CRITTENDEN COUNTY

Species	Growing stock			Sawtimber		
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	In other stands
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**	*Thousand bd. ft.**	*Thousand bd. ft.**
Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	50	40	10	--	--	--
Hemlock	10	--	10	60	60	--
Cypress	90	--	90	780	780	--
Redcedar	630	320	310	1,280	1,010	270
Total softwoods	780	360	420	2,120	1,850	270
Hardwoods:						
Select white oak	7,610	2,590	5,020	30,080	23,380	6,700
Select red oak	3,510	1,060	2,450	15,430	12,570	2,860
Other white oak	3,330	1,340	1,990	11,770	7,660	4,110
Other red oak	9,420	2,900	6,520	39,850	30,240	9,610
Hickories	7,710	4,290	3,420	20,090	14,270	5,820
Hard maple	1,960	1,310	650	3,840	3,240	600
Beech	1,880	520	1,360	8,760	7,390	1,370
Black walnut	530	250	280	1,620	1,400	220
Ash	2,100	1,340	760	3,970	3,490	480
Soft maple	1,640	530	1,110	6,270	5,270	1,000
Sweetgum	2,090	690	1,400	8,130	6,750	1,380
Blackgum	1,080	410	670	3,860	3,270	590
Cottonwood	380	100	280	1,620	1,600	20
Yellow-poplar	2,400	560	1,840	11,490	8,480	3,010
Basswood	20	--	20	90	--	90
Other	5,920	3,210	2,710	15,710	13,480	2,230
Total hardwoods	51,580	21,100	30,480	182,580	142,490	40,090
All species	52,360	21,460	30,900	184,700	144,340	40,360

DAVIESS COUNTY

Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	30	30	--	--	--	--
Hemlock	10	--	10	60	60	--
Cypress	410	--	410	3,530	3,530	--
Redcedar	440	220	220	870	740	130
Total softwoods	890	250	640	4,460	4,330	130
Hardwoods:						
Select white oak	4,730	1,600	3,130	18,770	14,990	3,780
Select red oak	2,900	670	2,230	14,350	12,350	2,000
Other white oak	1,930	770	1,160	6,870	4,280	2,590
Other red oak	7,650	2,020	5,630	34,060	26,520	7,540
Hickories	4,950	2,480	2,470	14,780	11,630	3,150
Hard maple	1,280	910	370	2,100	1,760	340
Beech	1,120	300	820	5,380	4,550	830
Black walnut	380	190	190	1,060	920	140
Ash	1,560	890	670	3,800	3,510	290
Soft maple	2,090	800	1,290	7,430	5,250	2,180
Sweetgum	3,820	1,360	2,460	14,550	13,140	1,410
Blackgum	830	330	500	2,920	2,740	180
Cottonwood	1,050	110	940	5,890	5,780	110
Yellow-poplar	1,930	410	1,520	9,540	6,430	3,110
Basswood	--	--	--	20	--	20
Other	5,270	2,690	2,580	15,300	13,010	2,290
Total hardwoods	41,490	15,530	25,960	156,820	126,860	29,960
All species	42,380	15,780	26,600	161,280	131,190	30,090

* International ¼-inch rule.

Table 10. -- *Volume of growing stock and sawtimber on commercial-forest land by species and kind of material Western Coalfield Unit, Kentucky, 1963 -- Continued*

EDMONSON COUNTY

Species	Growing stock			Sawtimber		
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	In other stands
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**	*Thousand bd. ft.**	*Thousand bd. ft.**
Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	1,030	410	620	1,710	1,710	--
Hemlock	40	--	40	140	140	--
Cypress	410	--	410	1,620	1,620	--
Redcedar	530	250	280	550	470	80
Total softwoods	2,010	660	1,350	4,020	3,940	80
Hardwoods:						
Select white oak	7,410	2,180	5,230	14,820	12,030	2,790
Select red oak	3,280	940	2,340	6,990	5,980	1,010
Other white oak	2,960	1,280	1,680	4,730	3,330	1,400
Other red oak	8,180	2,380	5,800	16,700	14,030	2,670
Hickories	6,790	3,620	3,170	8,760	6,950	1,810
Hard maple	1,750	1,090	660	1,790	1,580	210
Beech	1,880	520	1,360	4,320	3,890	430
Black walnut	490	190	300	780	700	80
Ash	1,990	1,160	830	2,050	1,870	180
Soft maple	1,290	350	940	2,470	2,180	290
Sweetgum	1,740	710	1,030	2,770	2,420	350
Blackgum	1,050	380	670	1,820	1,650	170
Cottonwood	770	100	670	1,930	1,930	--
Yellow-poplar	1,920	390	1,530	4,450	3,460	990
Basswood	10	--	10	30	--	30
Other	5,210	2,680	2,530	6,890	6,240	650
Total hardwoods	46,720	17,970	28,750	81,300	68,240	13,060
All species	48,730	18,630	30,100	85,320	72,180	13,140

HENDERSON COUNTY

Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	20	20	--	--	--	--
Hemlock	10	--	10	60	60	--
Cypress	140	--	140	1,180	1,180	--
Redcedar	290	130	160	620	540	80
Total softwoods	460	150	310	1,860	1,780	80
Hardwoods:						
Select white oak	3,650	1,310	2,340	14,220	11,620	2,600
Select red oak	2,600	550	2,050	13,180	11,550	1,630
Other white oak	1,350	540	810	4,780	2,780	2,000
Other red oak	7,690	1,770	5,920	35,910	27,060	8,850
Hickories	3,830	1,850	1,980	12,190	9,860	2,330
Hard maple	1,240	960	280	1,620	1,220	400
Beech	700	260	440	2,860	2,130	730
Black walnut	240	130	110	590	490	100
Ash	1,670	960	710	4,220	3,850	370
Soft maple	1,960	720	1,240	7,430	4,130	3,300
Sweetgum	4,620	1,700	2,920	17,300	15,690	1,610
Blackgum	760	310	450	2,590	2,300	290
Cottonwood	690	80	610	4,100	3,930	170
Yellow-poplar	1,680	390	1,290	8,100	4,130	3,970
Basswood	--	--	--	30	--	30
Other	5,220	2,620	2,600	15,210	12,820	2,390
Total hardwoods	37,900	14,150	23,750	144,330	113,560	30,770
All species	38,360	14,300	24,060	146,190	115,340	30,850

* International ¼-inch rule.

Table 10. -- *Volume of growing stock and sawtimber on commercial-forest land by species and kind of material Western Coalfield Unit, Kentucky, 1963 -- Continued*

HOPKINS COUNTY

Species	Growing stock			Sawtimber		
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	In other stands
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**	*Thousand bd. ft.**	*Thousand bd. ft.**
Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	100	100	--	--	--	--
Hemlock	10	--	10	100	100	--
Cypress	420	--	420	3,530	3,530	--
Redcedar	1,180	550	630	2,580	2,120	460
Total softwoods	1,710	650	1,060	6,210	5,750	460
Hardwoods:						
Select white oak	15,580	5,100	10,480	62,670	51,170	11,500
Select red oak	7,300	1,960	5,340	33,760	29,000	4,760
Other white oak	5,750	2,330	3,420	20,270	13,710	6,560
Other red oak	19,330	5,250	14,080	86,920	69,500	17,420
Hickories	14,850	7,950	6,900	40,750	31,150	9,600
Hard maple	3,770	2,550	1,220	7,100	6,100	1,000
Beech	3,880	1,110	2,770	17,960	15,920	2,040
Black walnut	1,060	450	610	3,360	3,020	340
Ash	4,980	3,150	1,830	9,870	8,970	900
Soft maple	3,900	1,290	2,610	14,750	11,750	3,000
Sweetgum	5,840	2,210	3,630	21,230	18,690	2,540
Blackgum	2,340	820	1,520	8,810	7,690	1,120
Cottonwood	1,310	180	1,130	6,920	6,190	730
Yellow-poplar	4,770	1,040	3,730	23,250	17,100	6,150
Basswood	20	--	20	130	--	130
Other	12,770	6,330	6,440	37,440	33,500	3,940
Total hardwoods	107,450	41,720	65,730	395,190	323,460	71,730
All species	109,160	42,370	66,790	401,400	329,210	72,190

LOGAN COUNTY

Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	60	60	--	--	--	--
Hemlock	20	--	20	120	120	--
Cypress	320	--	320	2,740	2,740	--
Redcedar	680	340	340	1,370	1,080	290
Total softwoods	1,080	400	680	4,230	3,940	290
Hardwoods:						
Select white oak	9,630	3,380	6,250	37,100	29,050	8,050
Select red oak	4,490	1,420	3,070	19,290	15,370	3,920
Other white oak	4,100	1,660	2,440	14,420	9,420	5,000
Other red oak	11,450	3,720	7,730	47,300	37,100	10,200
Hickories	9,240	5,070	4,170	24,390	17,740	6,650
Hard maple	2,400	1,600	800	4,670	3,850	820
Beech	2,420	690	1,730	11,290	9,740	1,550
Black walnut	640	310	330	1,870	1,590	280
Ash	2,740	1,710	1,030	5,500	4,920	580
Soft maple	1,930	660	1,270	7,050	5,740	1,310
Sweetgum	2,790	1,070	1,720	9,920	8,570	1,350
Blackgum	1,250	490	760	4,370	3,800	570
Cottonwood	830	140	690	4,260	4,220	40
Yellow-poplar	2,880	670	2,210	13,660	9,890	3,770
Basswood	20	--	20	100	--	100
Other	7,140	3,830	3,310	19,170	16,640	2,530
Total hardwoods	63,950	26,420	37,530	224,360	177,640	46,720
All species	65,030	26,820	38,210	228,590	181,580	47,010

* International ¼-inch rule.

Table 10. -- *Volume of growing stock and sawtimber on commercial-forest land by species and kind of material Western Coalfield Unit, Kentucky, 1963 -- Continued*

McLEAN COUNTY

Species	Growing stock			Sawtimber		
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	In other stands
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**	*Thousand bd. ft.**	*Thousand bd. ft.**
Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	20	20	--	--	--	--
Hemlock	10	--	10	40	40	--
Cypress	90	--	90	790	790	--
Redcedar	230	110	120	490	400	90
Total softwoods	350	130	220	1,320	1,230	90
Hardwoods:						
Select white oak	3,580	1,140	2,440	14,730	12,570	2,160
Select red oak	2,140	460	1,680	10,810	9,570	1,240
Other white oak	1,260	520	740	4,390	3,000	1,390
Other red oak	6,070	1,510	4,560	27,700	22,250	5,450
Hickories	3,520	1,660	1,860	11,360	9,490	1,870
Hard maple	940	650	290	1,620	1,310	310
Beech	830	240	590	3,790	3,210	580
Black walnut	300	140	160	860	700	160
Ash	1,300	680	620	3,720	3,410	310
Soft maple	1,460	650	810	4,560	3,290	1,270
Sweetgum	3,730	1,410	2,320	13,740	12,800	940
Blackgum	680	250	430	2,460	2,260	200
Cottonwood	570	50	520	3,370	3,110	260
Yellow-poplar	1,320	280	1,040	6,510	4,480	2,030
Basswood	--	--	--	30	--	30
Other	3,670	1,840	1,830	10,930	9,400	1,530
Total hardwoods	31,370	11,480	19,890	120,580	100,850	19,730
All species	31,720	11,610	20,110	121,900	102,080	19,820

MONROE COUNTY

Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	260	160	100	580	580	--
Hemlock	20	--	20	140	140	--
Cypress	410	--	410	3,520	3,520	--
Redcedar	700	340	360	1,450	1,180	270
Total softwoods	1,390	500	890	5,690	5,420	270
Hardwoods:						
Select white oak	9,930	3,430	6,500	38,660	30,780	7,880
Select red oak	4,400	1,290	3,110	19,570	16,470	3,100
Other white oak	4,240	1,770	2,470	14,600	9,710	4,890
Other red oak	10,770	3,370	7,400	45,280	37,220	8,060
Hickories	9,350	5,130	4,220	24,620	19,220	5,400
Hard maple	2,390	1,570	820	4,830	4,260	570
Beech	2,580	740	1,840	12,100	10,940	1,160
Black walnut	640	290	350	2,010	1,710	300
Ash	2,580	1,510	1,070	5,750	5,130	620
Soft maple	1,720	530	1,190	6,590	5,740	850
Sweetgum	2,700	1,020	1,680	9,730	8,640	1,090
Blackgum	1,230	500	730	4,200	3,870	330
Cottonwood	910	120	790	4,900	4,880	20
Yellow-poplar	2,920	600	2,320	14,430	11,540	2,890
Basswood	10	--	10	90	--	90
Other	6,880	3,610	3,270	18,970	16,690	2,280
Total hardwoods	63,250	25,480	37,770	226,330	186,800	39,530
All species	64,640	25,980	38,660	232,020	192,220	39,800

* International ¼-inch rule.

Table 10. -- *Volume of growing stock and sawtimber on commercial-forest land by species and kind of material Western Coalfield Unit, Kentucky, 1963 -- Continued*

MUHLENBERG COUNTY

Species	Growing stock			Sawtimber		
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	In other stands
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**	*Thousand bd. ft.**	*Thousand bd. ft.**
Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	80	80	--	--	--	--
Hemlock	20	--	20	160	160	--
Cypress	140	--	140	1,170	1,170	--
Redcedar	970	470	500	2,090	1,690	400
Total softwoods	1,210	550	660	3,420	3,020	400
Hardwoods:						
Select white oak	12,740	4,290	8,450	50,640	41,200	9,440
Select red oak	5,910	1,640	4,270	26,920	22,940	3,980
Other white oak	5,220	2,140	3,080	18,320	12,450	5,870
Other red oak	15,950	4,580	11,370	70,090	57,090	13,000
Hickories	12,790	6,760	6,030	35,580	27,510	8,070
Hard maple	3,290	2,170	1,120	6,490	5,560	930
Beech	3,440	950	2,490	16,390	14,530	1,860
Black walnut	950	410	540	2,990	2,700	290
Ash	4,540	2,850	1,690	9,160	8,410	750
Soft maple	3,070	1,020	2,050	11,350	9,900	1,450
Sweetgum	4,900	1,880	3,020	17,680	16,060	1,620
Blackgum	1,750	690	1,060	6,070	5,210	860
Cottonwood	810	130	680	4,070	3,800	270
Yellow-poplar	3,830	920	2,910	18,120	13,430	4,690
Basswood	20	--	20	140	--	140
Other	11,120	5,140	5,980	34,990	32,080	2,910
Total hardwoods	90,330	35,570	54,760	329,000	272,870	56,130
All species	91,540	36,120	55,420	332,420	275,890	56,530

OHIO COUNTY

Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	200	70	130	760	760	--
Hemlock	20	--	20	120	120	--
Cypress	1,140	--	1,140	9,790	9,790	--
Redcedar	1,240	610	630	2,480	2,030	450
Total softwoods	2,600	680	1,920	13,150	12,700	450
Hardwoods:						
Select white oak	17,960	6,270	11,690	69,520	54,580	14,940
Select red oak	8,390	2,290	6,100	38,740	32,200	6,540
Other white oak	7,500	3,060	4,440	26,020	17,080	8,940
Other red oak	21,550	6,400	15,150	92,950	75,970	16,980
Hickories	16,040	8,830	7,210	42,210	32,170	10,040
Hard maple	4,330	2,890	1,440	8,260	7,330	930
Beech	4,550	1,350	3,200	20,640	18,290	2,350
Black walnut	1,020	490	530	3,050	2,500	550
Ash	5,160	3,200	1,960	10,360	9,350	1,010
Soft maple	3,670	1,210	2,460	13,460	11,360	2,100
Sweetgum	5,750	2,040	3,710	21,420	18,770	2,650
Blackgum	2,410	960	1,450	8,490	7,760	730
Cottonwood	2,370	310	2,060	12,830	12,680	150
Yellow-poplar	5,660	1,230	4,430	27,510	21,360	6,150
Basswood	30	--	30	150	--	150
Other	13,410	7,100	6,310	36,620	32,620	4,000
Total hardwoods	119,800	47,630	72,170	432,230	354,020	78,210
All species	122,400	48,310	74,090	445,380	366,720	78,660

* International ¼-inch rule.

Table 10. -- *Volume of growing stock and sawtimber on commercial-forest land by species and kind of material*
Western Coalfield Unit, Kentucky, 1963 -- Continued

SIMPSON COUNTY

Species	Growing stock			Sawtimber		
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	In other stands
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**	*Thousand bd. ft.**	*Thousand bd. ft.**
Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	10	10	--	--	--	--
Hemlock	10	--	10	40	40	--
Cypress	130	--	130	1,170	1,170	--
Redcedar	150	80	70	260	210	50
Total softwoods	300	90	210	1,470	1,420	50
Hardwoods:						
Select white oak	1,530	570	960	5,700	4,140	1,560
Select red oak	960	260	700	4,490	3,660	830
Other white oak	750	310	440	2,560	1,580	980
Other red oak	2,660	860	1,800	10,790	9,000	1,790
Hickories	1,890	970	920	5,560	4,480	1,080
Hard maple	520	350	170	1,010	850	160
Beech	470	100	370	2,440	2,090	350
Black walnut	130	70	60	350	320	30
Ash	600	340	260	1,610	1,450	160
Soft maple	420	190	230	1,240	1,160	80
Sweetgum	1,250	510	740	4,360	4,080	280
Blackgum	240	80	160	910	880	30
Cottonwood	360	30	330	2,130	2,120	10
Yellow-poplar	580	110	470	2,920	2,070	850
Basswood	--	--	--	--	--	--
Other	1,650	860	790	4,640	3,870	770
Total hardwoods	14,010	5,610	8,400	50,710	41,750	8,960
All species	14,310	5,700	8,610	52,180	43,170	9,010

TODD COUNTY

Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	50	50	--	--	--	--
Hemlock	10	--	10	60	60	--
Cypress	--	--	--	--	--	--
Redcedar	520	280	240	1,060	860	200
Total softwoods	580	330	250	1,120	920	200
Hardwoods:						
Select white oak	4,950	1,480	3,470	21,090	17,690	3,400
Select red oak	2,370	610	1,760	11,050	9,590	1,460
Other white oak	1,970	780	1,190	7,190	4,820	2,370
Other red oak	6,440	1,830	4,610	28,410	23,410	5,000
Hickories	5,410	2,760	2,650	15,690	12,300	3,390
Hard maple	1,210	740	470	2,750	2,300	450
Beech	1,220	300	920	6,020	5,100	920
Black walnut	460	180	280	1,520	1,480	40
Ash	1,820	1,150	670	3,600	3,340	260
Soft maple	1,120	300	820	4,600	4,330	270
Sweetgum	1,770	750	1,020	5,920	5,280	640
Blackgum	810	300	510	2,890	2,530	360
Cottonwood	140	50	90	650	640	10
Yellow-poplar	1,400	300	1,100	6,930	5,230	1,700
Basswood	10	--	10	40	--	40
Other	4,870	2,220	2,650	15,420	13,880	1,540
Total hardwoods	35,970	13,750	22,220	133,770	111,920	21,850
All species	36,550	14,080	22,470	134,890	112,840	22,050

* International ¼-inch rule.

Table 10. -- *Volume of growing stock and sawtimber on commercial-forest land by species and kind of material*
Western Coalfield Unit, Kentucky, 1963 -- Continued

UNION COUNTY

Species	Growing stock			Sawtimber		
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	In other stands
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**	*Thousand bd. ft.**	*Thousand bd. ft.**
Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	20	20	--	--	--	--
Hemlock	10	--	10	40	40	--
Cypress	320	--	320	2,740	2,740	--
Redcedar	200	110	90	360	300	60
Total softwoods	550	130	420	3,140	3,080	60
Hardwoods:						
Select white oak	2,390	870	1,520	9,050	6,950	2,100
Select red oak	1,620	390	1,230	7,850	6,360	1,490
Other white oak	900	370	530	3,070	1,840	1,230
Other red oak	4,210	1,090	3,120	18,790	14,470	4,320
Hickories	2,410	1,160	1,250	7,640	5,700	1,940
Hard maple	590	440	150	870	570	300
Beech	480	190	290	1,940	1,350	590
Black walnut	180	100	80	460	400	60
Ash	980	560	420	2,360	2,090	270
Soft maple	1,070	420	650	3,680	2,610	1,070
Sweetgum	2,540	1,010	1,530	9,030	8,060	970
Blackgum	480	190	290	1,730	1,470	260
Cottonwood	800	90	710	4,590	4,320	270
Yellow-poplar	920	220	700	4,320	2,230	2,090
Basswood	--	--	--	20	--	20
Other	2,830	1,460	1,370	7,900	6,560	1,340
Total hardwoods	22,400	8,560	13,840	83,300	64,980	18,320
All species	22,950	8,690	14,260	86,440	68,060	18,380

WARREN COUNTY

Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	180	60	120	760	760	--
Hemlock	20	--	20	130	130	--
Cypress	230	--	230	1,960	1,960	--
Redcedar	680	320	360	1,470	1,230	240
Total softwoods	1,110	380	730	4,320	4,080	240
Hardwoods:						
Select white oak	9,030	3,060	5,970	35,940	29,900	6,040
Select red oak	3,870	1,140	2,730	17,300	14,430	2,870
Other white oak	3,600	1,460	2,140	12,770	8,800	3,970
Other red oak	9,930	3,030	6,900	42,250	34,030	8,220
Hickories	8,530	4,550	3,980	23,250	18,160	5,090
Hard maple	2,390	1,510	880	5,140	4,190	950
Beech	2,450	700	1,750	11,380	9,950	1,430
Black walnut	650	290	360	2,010	1,780	230
Ash	2,180	1,270	910	4,940	4,410	530
Soft maple	1,540	460	1,080	6,090	5,200	890
Sweetgum	1,930	680	1,250	7,110	6,240	870
Blackgum	1,130	460	670	3,790	3,190	600
Cottonwood	520	70	450	2,830	2,820	10
Yellow-poplar	2,850	640	2,210	13,820	10,900	2,920
Basswood	20	--	20	130	--	130
Other	6,190	3,280	2,910	17,010	14,810	2,200
Total hardwoods	56,810	22,600	34,210	205,760	168,810	36,950
All species	57,920	22,980	34,940	210,080	172,890	37,190

* International ¼-inch rule.

Table 10.--*Volume of growing stock and sawtimber on commercial-forest land by species and kind of material*
Western Coalfield Unit, Kentucky 1963--Continued

WEBSTER COUNTY

Species	Growing stock			Sawtimber		
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	In other stands
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**	*Thousand bd. ft.**	*Thousand bd. ft.**
Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	30	30	--	--	--	--
Hemlock	10	--	10	40	40	--
Cypress	180	--	180	1,570	1,570	--
Redcedar	400	210	190	760	600	160
Total softwoods	620	240	380	2,370	2,210	160
Hardwoods:						
Select white oak	5,220	1,800	3,420	20,440	15,630	4,810
Select red oak	2,570	710	1,860	11,790	9,780	2,010
Other white oak	2,260	890	1,370	8,060	5,160	2,900
Other red oak	6,910	2,100	4,810	29,090	21,990	7,100
Hickories	5,250	2,790	2,460	14,740	10,820	3,920
Hard maple	1,290	910	380	2,160	1,740	420
Beech	1,280	380	900	5,870	4,880	990
Black walnut	400	190	210	1,200	1,030	170
Ash	1,590	990	600	3,440	3,030	410
Soft maple	1,110	420	690	3,940	2,670	1,270
Sweetgum	2,600	1,030	1,570	9,200	8,120	1,080
Blackgum	660	260	400	2,280	1,910	370
Cottonwood	550	70	480	3,140	3,060	80
Yellow-poplar	1,580	370	1,210	7,450	4,550	2,900
Basswood	10	--	10	50	--	50
Other	4,250	2,370	1,880	11,020	9,060	1,960
Total hardwoods	37,530	15,280	22,250	133,870	103,430	30,440
All species	38,150	15,520	22,630	136,240	105,640	30,600

* International ¼-inch rule.

Table 11.--*Volume of growing stock on commercial-forest land by species and diameter class*
Western Coalfield Unit, Kentucky, 1963

(In thousand cubic feet by diameter in inches)

Species	Total	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0 and larger
Softwoods:											
Shortleaf pine	--	--	--	--	--	--	--	--	--	--	--
Other yellow pines	3,230	1,380	430	870	550	--	--	--	--	--	--
Hemlock	370	--	---	--	--	370	--	--	--	--	--
Cypress	5,320	--	--	--	--	--	--	1,130	--	--	4,190
Redcedar	12,470	2,600	3,510	3,430	1,340	690	260	640	--	--	--
Total softwoods	21,390	3,980	3,940	4,300	1,890	1,060	260	1,770	--	--	4,190
Hardwoods:											
Select white oak	164,190	9,390	18,340	26,480	32,770	24,190	19,530	11,970	10,240	2,070	9,210
Select red oak	77,800	4,050	8,400	8,950	7,940	7,770	8,940	11,490	6,320	2,520	11,420
Other white oak	65,830	4,150	7,030	15,630	13,020	10,040	6,090	2,930	1,670	1,740	3,530
Other red oak	203,290	9,120	21,100	28,450	27,630	33,920	22,590	19,860	13,610	8,640	18,370
Hickories	159,650	20,050	32,390	32,190	30,460	20,150	12,060	8,900	2,440	670	340
Hard maple	41,800	5,850	8,700	12,970	5,260	4,520	3,260	1,200	--	--	40
Beech	41,500	1,730	3,020	6,930	5,480	3,600	4,970	6,840	2,420	2,200	4,310
Black walnut	11,840	1,050	1,990	2,190	3,230	710	1,710	790	170	--	--
Ash	49,110	5,560	11,140	13,150	8,390	2,850	3,490	540	330	2,640	1,020
Soft maple	37,670	3,090	4,140	5,410	6,510	6,320	3,870	2,070	2,530	--	3,730
Sweetgum	61,560	3,560	10,430	9,110	7,320	10,430	10,570	6,050	2,260	930	900
Blackgum	23,780	2,470	2,570	4,020	4,900	2,170	4,730	680	1,200	--	1,040
Cottonwood	14,520	260	270	1,500	780	990	2,470	2,590	3,400	1,250	1,010
Yellow-poplar	49,890	2,240	3,720	5,100	8,140	8,180	6,600	7,700	5,110	1,000	2,100
Basswood	240	--	--	--	--	--	240	--	--	--	--
Other	133,220	17,330	22,870	27,340	18,100	16,360	10,550	8,780	3,660	5,020	3,210
Total hardwoods	1,135,890	89,900	156,110	199,420	179,930	152,200	121,670	92,390	55,360	28,680	60,230
All species	1,157,280	93,880	160,050	203,720	181,820	153,260	121,930	94,160	55,360	28,680	64,420

Table 12. -- *Volume of sawtimber on commercial-forest land by species and diameter class*
Western Coalfield Unit, Kentucky, 1963

(In thousand board feet* by diameter in inches)

Species	Total	9.0-10.9†	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0 and larger
Softwoods:									
Shortleaf pine	--	--	--	--	--	--	--	--	--
Other yellow pines	8,230	4,900	3,330	--	--	--	--	--	--
Hemlock	2,450	--	--	2,450	--	--	--	--	--
Cypress	45,430	--	--	--	--	7,930	--	--	37,500
Redcedar	26,280	12,720	5,520	2,570	1,600	3,870	--	--	--
Total softwoods	82,390	17,620	8,850	5,020	1,600	11,800	--	--	37,500
Hardwoods:									
Select white oak	660,450	--	184,510	141,760	117,180	71,440	64,500	13,240	67,820
Select red oak	357,220	--	45,610	44,880	53,000	73,540	40,780	16,590	82,820
Other white oak	232,030	--	72,700	57,560	36,480	17,970	11,120	11,560	24,640
Other red oak	886,340	--	157,840	199,430	134,400	124,670	84,530	56,860	128,610
Hickories	442,630	--	171,270	119,550	72,610	57,300	15,530	4,190	2,180
Hard maple	82,750	--	29,730	26,190	19,440	7,390	--	--	--
Beech	195,090	--	31,130	21,950	31,370	42,430	15,530	15,220	37,460
Black walnut	36,950	--	17,300	3,610	10,070	4,930	1,040	--	--
Ash	104,820	--	39,160	16,210	19,000	3,240	2,040	18,410	6,760
Soft maple	140,770	--	31,480	32,600	21,880	12,440	15,400	--	26,970
Sweetgum	224,340	--	38,360	58,840	63,230	37,070	14,600	6,080	6,160
Blackgum	84,650	--	26,620	12,620	26,920	4,280	7,090	--	7,120
Cottonwood	78,100	--	2,830	6,010	14,800	16,270	23,310	8,530	6,350
Yellow-poplar	241,760	--	47,150	48,700	40,310	51,190	33,930	6,490	13,990
Basswood	1,550	--	--	--	1,550	--	--	--	--
Other	382,860	--	94,050	91,050	64,360	55,040	23,260	33,110	21,990
Total hardwoods	4,152,310	--	989,740	880,960	726,600	579,200	352,660	190,280	432,870
All species	4,234,700	17,620	998,590	885,980	728,200	591,000	352,660	190,280	470,370

* International ¼-inch rule.
† Softwoods only.

Table 13.--*Net annual growth on commercial-forest land by species and kind of material*
Western Coalfield Unit, Kentucky, 1963

Species	Growing stock			Sawtimber		
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	In other stands
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**	*Thousand bd. ft.**	*Thousand bd. ft.**
Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	340	140	200	870	430	440
Hemlock	10	--	10	90	90	--
Cypress	180	--	180	960	960	--
Redcedar	730	430	300	2,590	1,420	1,170
Total softwoods	1,260	570	690	4,510	2,900	1,610
Hardwoods:						
Select white oak	5,980	2,290	3,690	37,010	22,980	14,030
Select red oak	3,530	1,270	2,260	18,600	13,570	5,030
Other white oak	2,220	750	1,470	17,910	10,750	7,160
Other red oak	9,180	2,990	6,190	53,530	36,680	16,850
Hickories	6,560	4,070	2,490	27,620	16,190	11,430
Hard maple	2,160	1,320	840	11,870	7,950	3,920
Beech	1,210	430	780	8,000	5,290	2,710
Black walnut	630	280	350	3,010	2,190	820
Ash	2,490	1,650	840	11,460	8,390	3,070
Soft maple	1,900	820	1,080	9,470	7,960	1,510
Sweetgum	2,920	1,300	1,620	15,360	13,210	2,150
Blackgum	720	510	210	3,290	3,820	-530
Cottonwood	740	100	640	5,010	3,730	1,280
Yellow-poplar	3,110	640	2,470	17,480	12,140	5,340
Basswood	10	--	10	100	--	100
Other	7,900	4,260	3,640	34,140	26,160	7,980
Total hardwoods	51,260	22,680	28,580	273,860	191,010	82,850
All species	52,520	23,250	29,270	278,370	193,910	84,460

*International 1/4-inch rule.

Table 14.--*Net annual growth on commercial-forest land by county and species group*
Western Coalfield Unit, Kentucky, 1963

County	Growing stock			Sawtimber		
	All species	Softwoods	Hardwoods	All species	Softwoods	Hardwoods
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**	*Thousand bd. ft.**	*Thousand bd. ft.**
Allen	2,410	50	2,360	12,750	190	12,560
Barren	2,190	60	2,130	11,110	160	10,950
Butler	3,820	80	3,740	20,800	260	20,540
Caldwell	2,260	50	2,210	11,810	210	11,600
Christian	3,750	90	3,660	20,150	290	19,860
Crittenden	2,470	50	2,420	12,630	170	12,460
Daviess	1,870	50	1,820	10,130	160	9,970
Edmonson	2,230	170	2,060	11,620	690	10,930
Henderson	1,600	20	1,580	9,050	80	8,970
Hopkins	4,880	90	4,790	26,370	330	26,040
Logan	3,080	60	3,020	15,610	210	15,400
McLean	1,350	20	1,330	7,650	70	7,580
Monroe	2,960	80	2,880	15,780	300	15,480
Muhlenberg	4,160	70	4,090	22,270	260	22,010
Ohio	5,700	130	5,570	29,570	500	29,070
Simpson	670	20	650	3,550	60	3,490
Todd	1,650	40	1,610	8,770	110	8,660
Union	1,070	30	1,040	5,610	100	5,510
Warren	2,640	60	2,580	13,980	240	13,740
Webster	1,760	40	1,720	9,160	120	9,040
Total	52,520	1,260	51,260	278,370	4,510	273,860

*International 1/4-inch rule.

Table 15. -- *Timber cut from commercial-forest land by species and kind of material*
Western Coalfield Unit, Kentucky, 1962

Species	Growing stock			Sawtimber
	Total	Poletimber trees	Sawtimber trees	Total
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**
Softwoods:				
Shortleaf pine	--	--	--	--
Other yellow pines	290	180	110	540
Hemlock	--	--	--	--
Cypress	40	--	40	190
Redcedar	410	330	80	410
Total softwoods	740	510	230	1,140
Hardwoods:				
Select white oak	3,250	850	2,400	14,660
Select red oak	7,950	780	7,170	46,490
Other white oak	1,430	380	1,050	6,540
Other red oak	3,930	520	3,410	21,940
Hickories	2,820	1,020	1,800	11,170
Hard maple	530	110	420	2,800
Beech	1,740	100	1,640	11,270
Black walnut	780	20	760	5,310
Ash	620	60	560	3,770
Soft maple	1,680	20	1,660	10,980
Sweetgum	1,610	20	1,590	10,530
Blackgum	490	--	490	3,220
Cottonwood	880	10	870	5,830
Yellow-poplar	2,370	60	2,310	15,810
Basswood	110	10	100	690
Other	2,770	200	2,570	16,990
Total hardwoods	32,960	4,160	28,800	188,000
All species	33,700	4,670	29,030	189,140

* International ¼-inch rule.

Table 16.--*Timber cut from commercial-forest land by ownership and species group*
Western Coalfield Unit, Kentucky, 1962

Ownership class	Growing stock			Sawtimber		
	All species	Softwoods	Hardwoods	All species	Softwoods	Hardwoods
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**	*Thousand bd. ft.**	*Thousand bd. ft.**
Public	370	--	370	2,420	--	2,420
Forest industry	10	--	10	80	--	80
Farmer and miscellaneous private	33,320	740	32,580	186,640	1,140	185,500
All ownerships	33,700	740	32,960	189,140	1,140	188,000

*International 1/4-inch rule.

Table 17.--*Net annual desirable cut on commercial-forest land by species and kind of material*
Western Coalfield Unit, Kentucky, 1963

Species	Growing stock			Sawtimber		
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	In other stands
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**	*Thousand bd. ft.**	*Thousand bd. ft.**
Softwoods:						
Shortleaf pine	--	--	--	--	--	--
Other yellow pines	--	--	--	--	--	--
Hemlock	90	--	90	630	630	--
Cypress	110	--	110	880	880	--
Redcedar	180	70	110	480	260	220
Total softwoods	380	70	310	1,990	1,770	220
Hardwoods:						
Select white oak	7,380	2,310	5,070	29,380	25,270	4,110
Select red oak	3,150	610	2,540	15,460	12,140	3,320
Other white oak	2,600	1,110	1,490	8,330	6,330	2,000
Other red oak	5,520	1,260	4,260	26,320	25,100	1,220
Hickories	5,000	2,630	2,370	14,180	11,470	2,710
Hard maple	1,490	820	670	3,910	3,580	330
Beech	1,520	390	1,130	8,180	8,080	100
Black walnut	110	30	80	380	340	40
Ash	1,050	450	600	3,350	3,310	40
Soft maple	720	270	450	2,450	2,190	260
Sweetgum	1,540	590	950	5,350	5,200	150
Blackgum	840	270	570	3,190	3,190	--
Cottonwood	390	40	350	2,110	2,020	90
Yellow-poplar	1,610	280	1,330	7,980	7,110	870
Basswood	--	--	--	--	--	--
Other	3,160	1,400	1,760	10,510	10,290	220
Total hardwoods	36,080	12,460	23,620	141,080	125,620	15,460
All species	36,460	12,530	23,930	143,070	127,390	15,680

*International 1/4-inch rule.

Table 18.-- *Net annual desirable cut on commercial-forest land by county and species group*
Western Coalfield Unit, Kentucky, 1963

County	Growing stock			Sawtimber		
	All species	Softwoods	Hardwoods	All species	Softwoods	Hardwoods
	Thousand cu. ft.	*Thousand cu. ft.*	*Thousand cu. ft.*	*Thousand bd. ft.**	*Thousand bd. ft.**	*Thousand bd. ft.**
Allen	1,690	20	1,670	6,690	90	6,600
Barren	1,480	20	1,460	5,840	60	5,780
Butler	2,750	20	2,730	11,040	70	10,970
Caldwell	1,540	20	1,520	5,810	90	5,720
Christian	2,660	20	2,640	10,490	80	10,410
Crittenden	1,650	10	1,640	6,250	50	6,200
Daviess	1,340	20	1,320	5,440	120	5,320
Edmonson	1,520	30	1,490	6,100	210	5,890
Henderson	1,210	10	1,200	4,950	50	4,900
Hopkins	3,440	30	3,410	13,580	160	13,420
Logan	2,050	20	2,030	7,720	100	7,620
McLean	1,000	10	990	4,130	30	4,100
Monroe	2,040	20	2,020	7,830	140	7,690
Muhlenberg	2,890	20	2,870	11,260	90	11,170
Ohio	3,850	50	3,800	15,000	330	14,670
Simpson	450	10	440	1,760	40	1,720
Todd	1,150	10	1,140	4,570	30	4,540
Union	720	10	710	2,910	80	2,830
Warren	1,830	20	1,810	7,090	110	6,980
Webster	1,200	10	1,190	4,610	60	4,550
Total	36,460	380	36,080	143,070	1,990	141,080

*International 1/4-inch rule.

THE AUTHORS

PAUL S. DeBALD recently transferred to the Central States Forest Experiment Station from the Lake States Station where he began his Forest Service career in 1959. DeBald is experienced in all phases of Forest Survey work. Born in Pittsburgh, Paul graduated in forestry from the Pennsylvania State University. He is a member of the Society of American Foresters, Tau Phi Delta (professional forestry fraternity), and Xi Sigma Pi (honorary forestry society).

DAVID A. GANSNER began his Forest Service career in 1958 at the Lake States Forest Experiment Station, working on the Forest Survey in Missouri and Minnesota. In 1961 he moved to the Central States Station and his present job as Forest Survey Representative. A native of Missouri, Dave received his degree in forestry from the University of Missouri. He is a member of the Society of American Foresters, Xi Sigma Pi (honorary forestry society), and Gamma Sigma Delta (agricultural honor society).